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Allegheny General Hospital, Pittsburgh, Pa.
York and Sawyer, Architects

CALANDER HOSPITAL, GOTHENBURG. A. Bjerke, Architect

Recent Developments in Hospital Planning Abroad

BY LIONEL G. PEARSON [*F.*].

[*A Paper read before the Royal Institute of British Architects, on Monday, 16 May 1927.*]

THE original intention was that this paper should follow on after a lecture by my partner, Mr. Adams, on English Hospitals. Personally I am sorry that Mr. Adams has decided to give a separate paper on the subject of British Hospitals, as it would have been extremely interesting to make a comparison between the work done in this country and abroad. However, in view of the very wide field to be covered I am sure his decision was a wise one, and we shall look forward to an exhaustive paper on this subject at some future date.

I am confident that no country in the world has finer hospitals than England, but I think everyone will agree that there is much to be learned by seeing what other countries are doing in this line. Each country has its own way of working out the details of hospital planning to meet the social and climatic conditions of its inhabitants; but in the nursing of the sick there are certain problems which are universal, and it is in seeing how these are solved, and comparing the results, that the interest lies.

The subject is really a vast one, and it is impossible to do more than take a somewhat hasty survey in a short lecture. The line which I propose to follow is to describe more or less in detail a few typical hospitals in the countries which I have visited during the last two years. In all cases the hospitals are of recent erection—none before 1910, and many of them completed only in the last year or two.

The countries in Europe to be dealt with are Holland, Denmark and Sweden, which have much the same climatic conditions, and in America the Eastern States, nothing further west than Michigan or further south than Washington being included, so that in both cases the area is comparatively limited.

The economic effect of the War was not so severe in these countries as in England, with the result that their hospital development has been more continuous, and now that we are picking up again ourselves it is valuable to get an idea of the progress made.

It will be found that the European hospitals are more on the lines we adopt in this country—that is to say, the horizontal type of planning is the favourite, and a modified type of the pavilion system still holds its own; but on the other side of the Atlantic, for reasons which I shall give later, there is a strong tendency to adopt the vertical type of planning, and the pavilion system is coming to be regarded as old-fashioned, though there are still many examples of the latter (such as the Peter Bent Brigham Hospital at Boston and the John Hopkins Hospital at Baltimore).

There are some critics who would say that in Europe the comfort of the patient is the first con-

sideration, while in America the efficiency of the staff is put before everything else, but the two points of view would seem to be of almost equal importance to the hospital planner. The science of hospital planning is pursued very successfully in all the countries I visited, and there is a friendly rivalry to produce buildings which are up-to-date from the point of view of medical science and at the same time attractive to the patient.

Apart from the general features, such as the planning of the wards, the arrangement of the operating blocks, etc., I was specially interested in the planning of (1) the Private Patients' Rooms, and (2) the X-Ray Departments, as both these are important recent developments in hospital planning.

I was cheered to find in my journeys that some of the difficulties that beset hospital architects in this country are apparently universal: for instance, I never met a Sister who was really satisfied with the accommodation provided for linen, or found a type of window which admitted fresh air without causing a complaint from some patient in the ward.

PART I. EUROPEAN HOSPITALS.

HOLLAND.

A typical example of a modern Dutch hospital is the Red Cross Hospital at The Hague, designed by Mr. Cuypers.

The accommodation is for 150 patients, 75 male and 75 female, in surgical and medical wards.

The Administration is on the north side facing the main road and is connected by a corridor with the Patients' Block on the south. In the centre of this are twelve single-bed wards, with hot and cold water to every room, and separate balconies; and in the wings, which are set at an angle, are the twelve bed wards. The Sanitary Annex is at the end of these, and there is a glazed balcony beyond. The staircases are at each end of the main corridor and in the centre there is a bed lift also.

The Mortuary Block is at one end of the corridor and the Disinfecting Block is at the other end.

The Operating Block is at the north end of the building on the first floor. The Sterilising Room is next to the Operating Theatre, and there is a glazed sliding hatch several feet square between the two through which instruments can be passed.

On the roof of the Patients' Block is a flat protected by roofs for sun treatment.

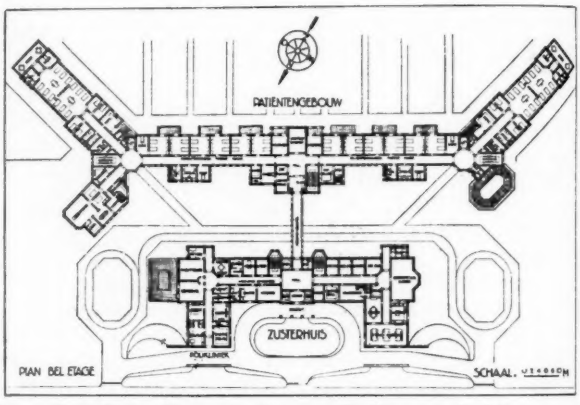
The following points in construction are of interest.

Floors to Main Wards, Operating Block and Sanitary Rooms are terrazzo; small wards and corridors, linoleum on concrete with small quarter-round in wood at edges.

The windows are of casement type and are double; the fanlights have slightly tinted glass.

The doors are rebated on to the frames to prevent draughts, and there is a threshold $\frac{3}{4}$ inch above floor for the same purpose.

The use of terrazzo is interesting; there is a solid balustrade 3 inches thick to the staircase, with a polished wood capping as handrail; the sinks in the vegetable scullery, which stand in the middle of the room, are also made of terrazzo 3 inches thick, and the draining boards are of the same material,



RED CROSS HOSPITAL, HAGUE. E. Cuypers, Architect

with a solid shelf under 4 inches above floor level. The exteriors of the baths are tiled, and there is a coved toe space in black terrazzo at the base.

The hospital at Dordrecht for 110 beds is by the same architect.

The type of plan illustrated is named by the architect the "Corridor System," which describes a plan in which the main corridors are lighted almost continuously on one side. This type of plan is a very sensible solution of the modern requirements, and is on very similar lines to recent work in England.

The characteristics which may be said to be typically Dutch are cheerfulness, cleanliness and common sense, with solidity of construction and fresh air and light everywhere. The colour schemes are usually very cheerful, as, for instance, corridors in one case are painted bright yellow and

doors bright red. Altogether, Holland may be said to have very much our ideals in hospital design.

DENMARK.

Copenhagen is distinguished for several large hospitals planned on the "Pavilion System."

The two most important are :—

1. Bispebjerg Hospital. Architect, Professor Nyrop; built in 1913 by the Municipality, and situated on a site sloping towards the south-east. The accommodation is for 800 patients in two-storeyed pavilions, each containing 104 beds.

The Administration Block is on the south side facing the road, with a driving way through the centre; and the offices, etc., are on the right of the main entrance.

The Patients' Pavilions are symmetrically disposed behind the Administration Block and are connected by subways with the Receiving Wards, kitchen, laundry, etc. The pavilions contain wards of 16 beds, 6 beds, 3 beds and 1 bed, and there is a Day Room in the centre open to the corridor; the ward kitchen, staircase, bathroom and laboratory are in the centre on the north side, and the sink rooms and W.C.'s are on the north side off the main corridor.

The Operating Blocks are situated between two surgical blocks and have two large theatres with bays and an anæsthetic room between. The floors are of unglazed tiles, the walls have a dado of glazed tiles 5 inches in height. On the ground floor of the Operating Block is the X-Ray Department, with rooms for diagnosis and treatment; dark room with lobby as light-lock, etc.

The Bath Pavilion is on the west side and is a very complete department divided in two, male one side, female the other. Every variety of bath is provided, including Russian bath, sand bath, etc., and there is a large room for therapy, massage, and a sheltered space in the roof for sun treatment.

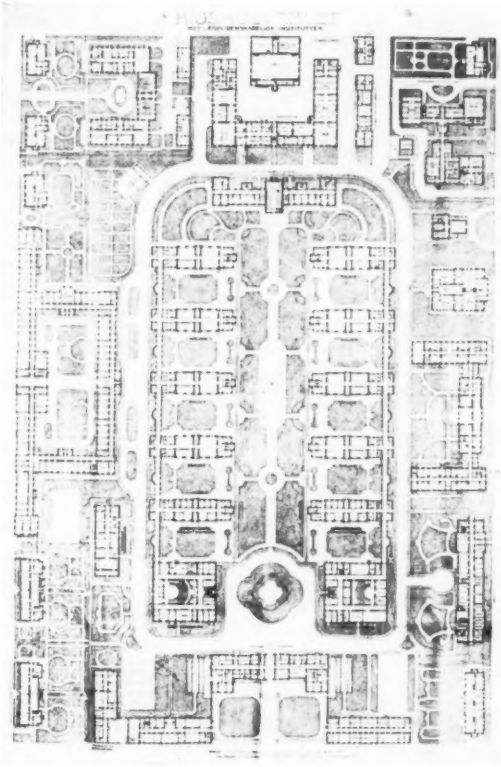
The Kitchen Block, with heating and laundry, is on the east side with access from the road on the lowest part of the site. The kitchen is very large and has a gallery all round for access to the upper tiers of windows, and there is no top light; the floor is of hard tiles.

The two Nurses' Homes, each containing accommodation for 140 nurses, are centrally placed, one on the east and one on the west.

The Assembly Hall and Chapel are at the north end of the site.

The following points are of interest in construction :—

The floors generally are linoleum laid on concrete, with an angle tile at the base of the wall; terrazzo is used in the bathrooms, etc.; the windows are of casement type and are double; special arrangements are made for ventilation; warmed air is pumped into the buildings, and foul air ducts are also provided.



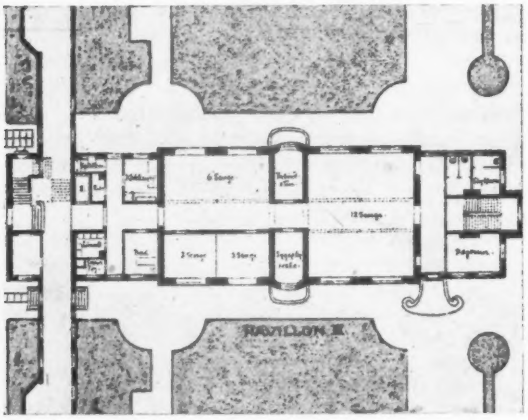
RIGSHOSPITAL, COPENHAGEN Prof. Nyrop, Architect

All vertical ducts are of concrete and can be sluiced with water.

The buildings are faced with red bricks and have tiled roofs, which are more suitable than flat roofs for the climate.

Rigshospital—Copenhagen.

This is the State Hospital (built in 1910), connected with the University, and contains about



RIGSHOSPITAL, COPENHAGEN. Prof. Nyrop, Architect.

800 beds ; medical one side and surgical the other.

The Ward Blocks are arranged on the pavilion system on a centre line which has the Administration Block the south end, and the kitchen and boiler house at the north end.

The Ward Blocks are connected by a covered way which leads to the Operating Block, but there are no subways and the food, linen, etc., are conveyed in trolleys in the open. The arrangement of the buildings is otherwise on the same principle as the Bispebjerg Hospital.

The Bath House is again a leading feature of the hospital. The X-ray Department has been added recently behind the Out-Patients' Department, and has a central corridor with large waiting room and large rooms for diagnosis and treatment.

The Military Hospital, Copenhagen.

This hospital, designed by Herr Laage, contains about 300 beds and is arranged in four separate blocks round a central garden—Administration Block, Nurses' Home, Ward Block (Medical), Ward Block (Surgical). The large wards have 16 beds, and there are smaller wards for 6, 4 and 2 beds, with a Day Room in the centre open to the corridor.

The details are very much as previously described, but one point of special interest was that all door frames were of metal, and there were metal angles (painted to match walls) to all exposed angles.

Finssen Institut, Copenhagen.

This is situated in the residential quarter and contains special blocks for various diseases, and these are mostly houses adapted. Adjoining these, facing the Strand Boulevard, is a State-endowed hospital built in 1919 and designed by Herr Tvede, and consists of an " E "-shaped building facing south-east.

The wards are mostly for 20 beds with windows between each bed, and there are central columns.

The kitchen is on the top floor over one of the wings ; the food is conveyed by service lifts, and the refuse is shot down a tin shute to covered bins at street level.

The elevations are dignified, but are carried out in cement ; the tall casement windows are characteristic of the style, and are made attractive internally by blue and white check curtains.

To sum up, the tendency in Denmark is to prefer large hospitals built in the pavilion system, the buildings generally being of ample dimensions, well built and well fitted internally. The objection to this system is undoubtedly the length of the corridors and the amount of energy expended by the staff in conveying themselves and the food and stores over these considerable distances. In addition to this, the monotonous repetition of blocks is very depressing architecturally, and the size of the institution must rather eliminate the human element. However, there are, no doubt, very great advantages to be gained in other ways, as the Danes are an extremely practical people and their hospitals have a very high reputation.

SWEDEN.

One of the most recent hospitals erected in Sweden is the Red Cross Hospital, Stockholm.

This hospital, designed by Herr Westmann

RED CROSS HOSPITAL, STOCKHOLM. Westmann, Architect.

(the architect of the Law Courts at Stockholm) is situated on a rocky eminence on the outskirts of the city, and is seven storeys in height. The architect has intentionally designed his buildings on non-symmetrical lines in order to gain a picturesque appearance.

There is an entrance courtyard with the main entrance to the hospital on one side and a two-storeyed building for out-patients, X-ray Department, etc., on the other side, with connecting corridor between the two blocks.

The main building has two wings at a lower level containing the Chapel and the Nurses' Quarters.

The wards are all small, mostly four beds and two beds; the w.c.'s, with artificial ventilation and no windows, are between the wards and the corridor.

There is a loggia on every floor for the use of patients, and the roof is also available.

The Operating Theatre is situated at the top of the building; the buildings are covered externally with coloured stucco with a granite base.

Another recent Swedish hospital is the Calander Hospital at Gothenburg, designed by Herr A. Bjerke, the architect of the New Museum at Gothenburg.

The building is long with a tower in the centre over the main staircase.

The corridor runs the whole length of the building and is broken by recesses to the south which can be used as day rooms.

The wards are small—four beds and two beds—and have recesses for lavatory basins and large cupboards between the ward and corridor.

There is a narrow balcony facing south for use of patients. The kitchen is on the ground floor. Laundry, heating chamber, etc., are in the Basement.

The X-ray Department is on the ground floor, and the arrangement of the dressing boxes between the corridor and the rooms is very convenient, but the diagnosis room has no window.

The sink rooms are well arranged, and on every floor there is a special room with balcony for airing mattresses, etc.

The details of construction are of the usual type described.

There has been a distinct attempt made in recent hospital design in Sweden to make the buildings architecturally attractive, and this is to be expected in a nation which is so artistically alive.

The small wards, and to some extent individual sanitation, are approaching the up-to-date American model, but there is a lack of finish in the detail and the constructional methods which falls much behind the best American work. Perhaps in the cold Northern climate there is not the same necessity for precautions as to ventilation, rounded angles and all the detail we consider of such importance; but it is difficult to judge of the general level of excellence from the two examples above described, as neither of these hospitals was actually in running order or occupied by patients.

PART II. AMERICA.

The change-over from Europe to America is more easily made in a lecture than in reality, but the journey across three thousand miles of ocean has this advantage, that it prepares one's mind for the great difference in values and scale which it means.

The size of this country is at first rather overwhelming, but after a time the visitor from Europe realises that American standards of life are much the same from the Atlantic to the Pacific, and wherever he lands he will find the same hotel system, the street full of Ford cars, the Childs restaurants, etc. More important still is the fact that the same American spirit animates the whole people, and the same energy and desire for new methods is universal.

The industrial expansion of recent years has led to a great building activity, especially in the big cities, and the number of hospitals alone which have been built during the last ten years is amazing, and it would be almost impossible to visit them all personally unless anyone was prepared to spend many months about it. Fortunately, the leading architects are mostly located in New York and Chicago, and as they are most generous in imparting information and showing plans the task is much simplified.

One of the first introductions I made use of was to Mr. Philip Sawyer, whose firm, Messrs. York and Sawyer, have designed over fifty hospitals. And owing to his kindness I was allowed to see something of the working of the office and the building methods of works in progress. Mr. Sawyer, in turn, introduced me to Dr. Goldwater, the Director of Mount Sinai Hospital, New York,

and one of the leading hospital consultants in America. I realised what an important part these gentlemen play in the hospital business over there, acting as they do as liaison between the architectural and medical professions, and examining plans and schemes, reporting to committees, consulting with architects, etc.

The co-ordination of specialists is one of the successful features of American practice, and the result is that before the building is begun the plans are settled in great detail, and the result is speed and efficiency in the erection. Conferences are frequently held, too, during the progress of the works, and in some architects' offices there is a special conference room where meetings take place regularly between the client, builder, specialists, etc.

As the great majority of the people of the Eastern States live in cities, the city hospital is the most usual type, and the multi-storeyed hospital is the most popular just now, following the line of the office building, hotel or apartment house.

This has led to the vertical type of planning, with the elevator, the laundry chute and various other labour-saving devices playing a leading part in the construction. The long corridors of the European hospital are considered quite out of date, and one American visitor remarked after seeing one of our hospitals that he hoped the staff were fitted with roller skates.

The concentration which results from the vertical plan certainly simplifies the problem of the heating, lighting, plumbing and other services.

There is also the element of what must be called advertisement, for want of a better word, as the high building is never out of sight and out of mind, which is an important point in a voluntary hospital.

Before proceeding to describe the hospitals in detail, I should like to describe briefly what I think are the most noticeable features of a typical American hospital.

The Entrance is made as attractive as possible, and the Waiting Room is furnished like a hotel lounge, and frequently repeated on a smaller scale on the ward floors.

The Enquiry Office is usually facing the entrance, and is sometimes in the hall itself, as central heating allows halls and corridors to be used in this way.

The Record Room is also near at hand, and the methods of filing and keeping records are justifiably a source of great pride to the superintendents and stenographers.

The Staircase is not a very important feature as a rule, but the elevator-lobby makes up for this.

The Kitchen, most frequently placed in the basement and mechanically ventilated, is equipped with every sort of device, electrically heated food conveyors, electric dish-washing machines, mixing machines, orange-squeezers, etc.

A Cafeteria for the staff is now quite usual, and even the nursing staff are treated to this form of self-service.

The wards are now in much smaller units than formerly—16 beds being the maximum, and these are frequently divided by glazed screens into bays of four beds.

The single-bed ward is becoming increasingly the fashion, though an expert has calculated that only 30 per cent. of the patients in an ordinary hospital really require them.

The Nurses' Station is either in a glazed enclosure overlooking the ward, or else open to the corridor commanding the approach to the ward.

The Diet Kitchen is centrally placed, and it may be noted that the use of refrigerators is general, and "the larder facing north" not required. Opening off the corridor are linen stores, pails and brooms, etc., and all the usual accessories, including the very important flower-room, with a sink and shelves.

The Solarium is either at the end of the ward or a loggia provided on each floor for the use of patients, leaving the ward clear of balconies, and at the top of the building a comfortably furnished Sun Room is provided with French windows opening on to the "deck" over wards below.

The Operating Block has an operating theatre with floor and walls of pale grey or pale green tiles, or similar material (I saw only one instance of rubber), and the top-light is decidedly out of fashion. The reason for this is that the present-day surgeon prefers artificial light, and in one instance 100 cases between 7 a.m. and 7 p.m., in the month of October, showed 69 artificial and 31 natural. The anæsthetic room usually opens off the corridor, and is frequently furnished like an ordinary room to avoid the "operation atmosphere."

The plumbing of American hospitals is on rather different lines from what we consider correct in this country. The sink room (known

as the Utility Room) opens off the corridor without a cross-ventilated lobby, while baths and w.c.'s (known as Toilet) often open out of the patients' rooms, and are frequently without windows, depending on mechanical ventilation. The pipes are almost always buried in the wall or ceiling, which adds greatly to the smartness and cleanliness of the sanitary rooms.

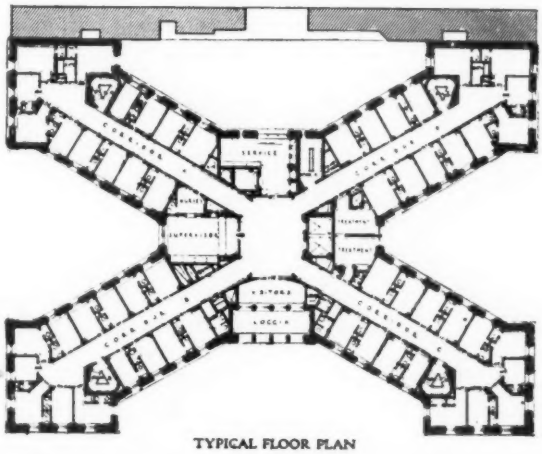
All this shows great confidence in modern methods of plumbing, though one suspects that some time there may be trouble ahead.

1. Fifth Avenue Hospital, New York City.

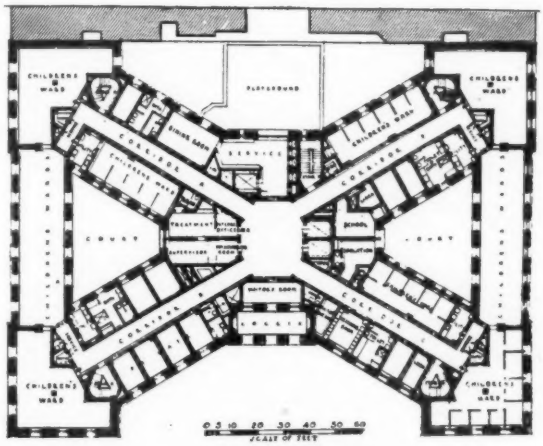
New York is particularly rich in hospitals, and one of the finest of them is the Fifth Avenue Hospital. This was built in 1921, to the designs of York and Sawyer, to provide accommodation for 320 patients of the " white-collar-men " class (clerks and people of small means), and the rates authorized by the Board of Trustees are from " nothing up."

The building, which is nine storeys in height, is constructed on the plan of the letter X, and overlooks the Central Park. All the patients are provided with single rooms, 16 ft. by 9 ft. each, furnished with a toilet, lavatory and necessary equipment. Centralisation of control is the keynote of the plan, and the central service department is located in the centre of the basement, and is flanked by the main kitchen, the diet kitchen, pharmacy, store-rooms, surgical supply departments, and linen rooms. The surgical supply division is particularly well arranged, as sterilised dressings from the various floors are taken down by a special dumb-waiter to the disinfecting room and if possible sterilised, reclaimed, and passed into the supply department. The main kitchen provides food service for the whole building, and is lighted and ventilated by artificial means.

The first floor contains the administrative offices, staff quarters, and a special feature in the form of private offices for physicians, where they can receive private patients, who can enter by a private entrance. The entrance hall is oval in plan, and is architecturally treated with a Travertine marble pavement. The second floor is devoted to children, and is arranged in the form of large open rooms, together with a number of glass cubicles. The typical floor plan has the four wings of patients' rooms radiating from a central rotunda, where are located the supervisor's office (in a commanding position), the service pantry, visitors' reception room, two passenger elevators, and two treatment rooms. In attending to the ordinary wants of the patient, the nurse will travel about four feet to the small toilet room.



TYPICAL FLOOR PLAN



SECOND FLOOR PLAN

Fifth Avenue Hospital, New York City
York and Sawyer, Architects

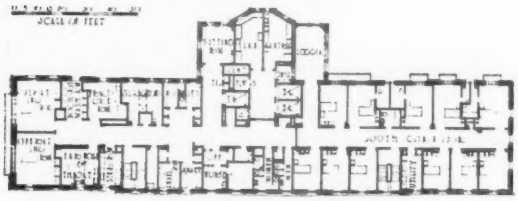
On the sixth floor is the Maternity Department, and, by the use of glass doors and sound-proofing materials to the ceilings, the problem of isolating the labour rooms has been assisted considerably.

The loggias on the roof and in the centre of the

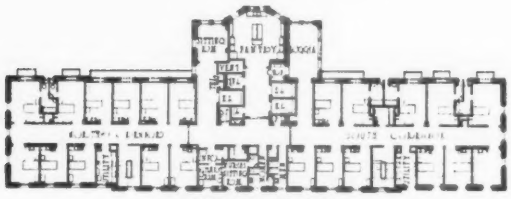
building are a particularly successful feature of the design, which is pleasantly carried out in a simple Italian style.

2. Mount Sinai Private Pavilion, New York City.

Within a few blocks of the Fifth Avenue Hospital



OPERATING ROOM FLOOR PLAN



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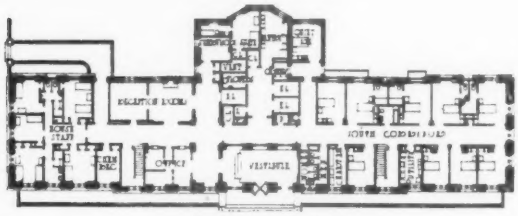
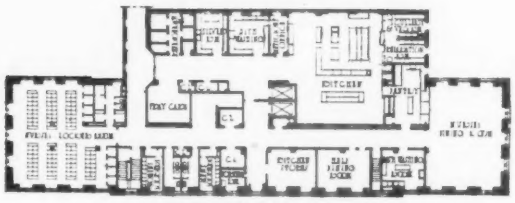


FIRST FLOOR PLAN



BASEMENT FLOOR PLAN

Mount Sinai Hospital, New York City.
A. Brunner, Architect

is the famous Mount Sinai Hospital, of which Dr. Goldwater is the director. The private patients' pavilion was built in 1921, to the designs of the late Arnold Brunner, to accommodate 131 private patients, on a plot of 200 feet by 70 feet, with long axis north and south, and facing Central Park on the west side. The building has seven floors above street level, and the northerly section of the first floor is given over to business offices, etc., while the corresponding section of the seventh floor is appropriated for operating rooms and accessories, the eighth or roof storey being used for convalescents. The kitchen is in the basement, also the dining-room for 112 nurses, store-rooms, workrooms, staff-rooms, housekeepers' stores for mattresses, linen, etc. The entrance to the building is in the centre of the block. The usual information clerk faces the visitor, and close by are the offices and reception rooms.

There is a rear entrance for stretcher cases. The corridor ceilings are arched, and the floors finished with rubber tile on the first floor and battleship linoleum on the upper floors, with borders and skirtings of terrazzo. A special feature are the night-lights installed in flush metal boxes twenty inches from the floor. Of the twenty-two rooms on each floor, four have private baths and toilets, two have private toilets, and there are utility rooms for the other sixteen; but there is "running water" in every room.

The size of the patients' rooms varies from 16 feet by 12 feet 6 inches to 15 feet by 10 feet 9 inches, and a feature of every room is the "combination metal cabinet" built flush into the wall, and divided into four sections—(1) clothes closet; (2) surgical dressings; (3) portable refrigerator; (4) bed utensils (this last opens into an exhaust ventilating duct). The doors are 4 feet wide, and are equipped with silent door-closers. In addition, there is a screen door about 5 feet high and 1 foot 6 inches from the floor, constructed of a wooden frame with casement cloth panels. This is much used in hot weather, when the solid door can be left open, the screen door ensuring privacy. Many of the rooms have balconies 3 feet wide, so that the head of the patient's bed may be in the open air if necessary.

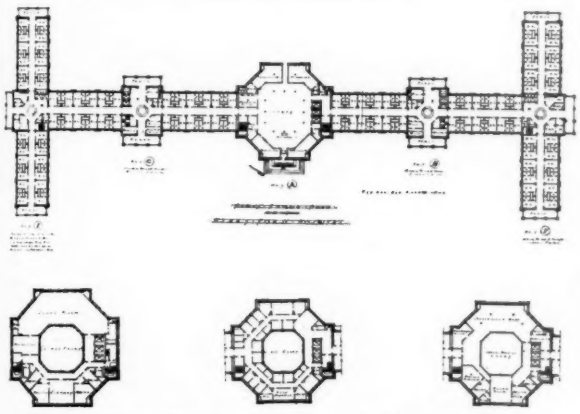
Henry Ford Hospital, Detroit, Michigan.

Both the hospitals above described are examples of the "single-bed" type, which is now the fashion in America; and another of the same class is the Henry Ford Hospital at Detroit, Michigan. This was built at a cost of $7\frac{1}{2}$ million dollars (the gift of Henry Ford). It covers a ground area of

twenty acres, with a frontage to West Grand Boulevard of 700 feet. It is in a style which is described as of " a Western type."

The building is in the form of an H, with long horizontal bar. It is six storeys in height, with main entrance in the centre, and administrative offices, pharmacy, diagnostic offices and rooms, record department, and library.

There are three units, each of which can be operated independently, each having a capacity for 96 patients, 24 on each floor. In addition, there is a unit to accommodate 48 mothers and babies and 96 children. Every patient has a separate room, with a bathroom and toilet attached (the toilet has



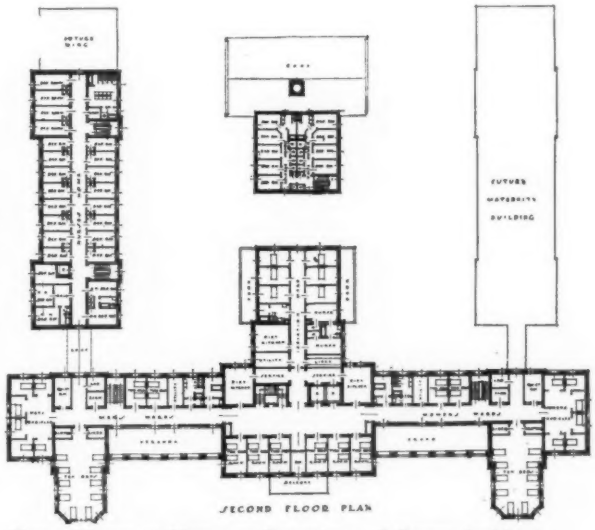
HENRY FORD HOSPITAL, DETROIT. A. Kahn, Architect

a special spout and lever for cleaning bed-pans). These rooms are built in pairs, with a service shelf between for access to pipes and conduits. There is a nursing station to every 24 patients, so that the station is within 60 feet of the most distant room. There is a charge, varying from $4\frac{1}{2}$ to 8 dollars a day, made for every patient. The nurses' home (in a style of architecture very superior to the main hospital) has 309 single rooms, 16 feet by 10 feet each, with a bath ; and each section has an elevator, a porch, sitting-room, tea-room, and kitchenette. The lounge, library, eight parlours for visitors, music room, etc., are luxuriously fitted up and furnished. There is a very fine power house, where oil fuel is used exclusively.

4. THE UNION MEMORIAL HOSPITAL, BALTIMORE, MARYLAND

is one of the best examples of city hospitals of medium type, and the buildings recently erected on 33rd Street, to the designs of Joseph Sperry, provide accommodation for 177 patients, with space left for a future block of 110 private rooms.

The basement contains dispensary, kitchen supplies, etc. The first floor, with the main entrance in the centre of the building, contains waiting rooms, offices, living quarters for doctors and superintendent. The second floor has two



UNION MEMORIAL HOSPITAL, BALTIMORE. J. Sperry, Architect

wards of ten beds each, which project from the main face of the building—six men's cubicles, six women's cubicles, ten 2-bed wards, and six isolations. On the third, fourth and fifth floors there are 32 private rooms. Eight of these rooms are connected with private baths.

On the sixth floor there are located the operating suite, X-ray Department, observation ward, and children's ward.

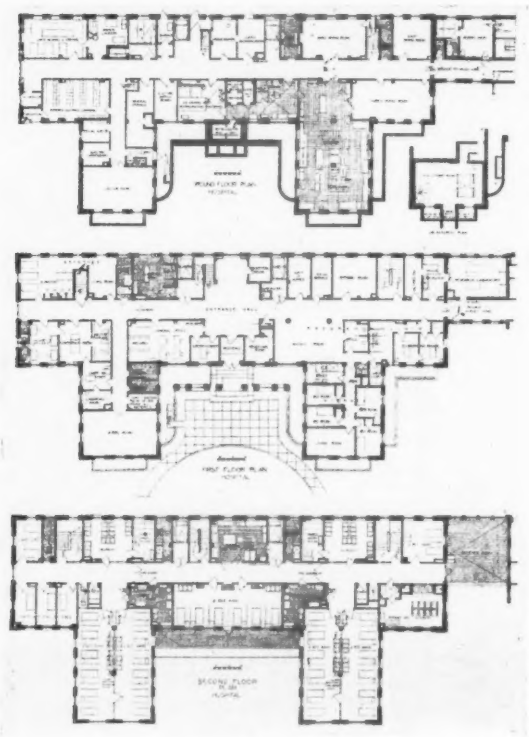
The floors of wards are hardwood, corridors terrazzo, X-ray rooms, etc., linoleum with terrazzo border.

The whole hospital is run on very attractive lines, and all ward windows are provided with white curtains, which give a cheerful look to the place.

5. THE MATERNITY HOSPITAL, BOSTON, MASS.

is another very attractive hospital, built from the designs of Coolidge and Shattuck, in 1923, among

the group of handsome buildings which surround the Harvard Medical School. The exterior is



MATERNITY HOSPITAL, BOSTON
Coolidge and Shattuck, Architects

charming, and is designed in a refined Italianesque style of buff mottled bricks, with concrete stone trim. The lay-out plan is the shape of a U, open to the south, main building in centre, nurses' home on east, and future private-room block on the west. The principal wards, which are on the second and third floors, consist of two 12-bed wards, divided down the centre with glazed screens, and one 6-bed ward in the centre with balcony. On the north side of the corridor are the serving-room, nurseries, washing room, toilet room, etc. The fourth floor is given up to delivery rooms and operating suites.

The heating and ventilation system is very elaborate, and special devices are employed to regulate the temperature and percentage of humidity in the premature nursery.

The floors of wards and corridors are of battleship linoleum, except the first floor corridor, which is black and white rubber tiles; and grey rubber flooring is used in all operating rooms, delivery rooms and toilet and bathrooms, with a 4 in. sanitary terrazzo base at a 45-degree angle to corridors and rooms. The operating room has an installation of artificial daylight which provides a lighting intensity of 80 foot-candles per square foot over the entire working area.

The nurses' home is of simple plan, with rooms about 12 feet by 8 feet and lavatories and toilets about one to every four nurses, and baths one to eight nurses.

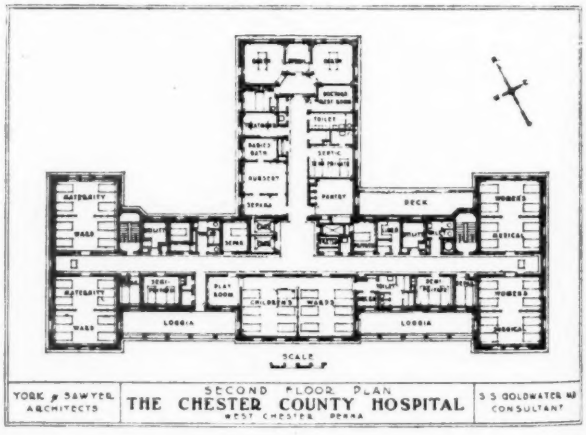
6. THE CHESTER COUNTY HOSPITAL, WINCHESTER, PENNSYLVANIA.

Built in 1925 from the designs of York & Sawyer.

This is a type of a 100-bed hospital in a town of medium size.

In the basement are the kitchen, stores, laundry, and the heating.

On the ground floor the entrance hall, offices, staff dining rooms, Out-patients' Department, and 2 wards of 8 beds each, also semi-private wards, 5 beds, total 21 men.



CHESTER COUNTY HOSPITAL, PA.
York and Sawyer, Architects

On the first floor 2 maternity wards, 8 beds each, 2 private and 2 semi-private, 1 children's

ward for 12 beds, 2 wards of 8 beds each, 1 semi-private and 1 private for women. Total 38 women, 12 children.

On the second floor 18 semi-private beds, 23 private beds. Total 41 beds. A self-contained suite for the superintendent and the operating suite on the north side.

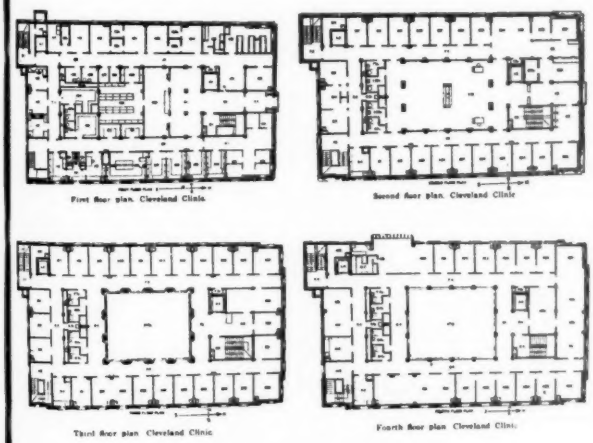
The floor of the entrance hall is marble, the wards and corridors have linoleum centres with terrazzo margins and skirtings, the operating theatre dull grey tiled floor and grey tiled dado 6 feet high. The wards are divided by glazed screens and the nurses' station is placed to command all beds.

The walls are covered externally with stucco and the building is designed in an Italian style.

7. Crile Clinic, Cleveland, Ohio.

One of the most interesting developments is the "pay clinic," some of which are run on the "combined medical service" principles. One of the best known of these is the Cleveland Clinic, founded by Dr. Crile and three other doctors, who run it on a paying basis with ten full-time assistants seeing about 300 patients daily. The entrance of the building is on the first floor, and leads to the registration desk, behind which is the record-filing room. Small lifts convey the records (there are now nearly 150,000 of them) to desks in the reception room and to the upper floors.

The X-ray Department occupies the west side of the first floor, the pharmacy and clinical laboratories are on the east side. The reception rooms on the second floor form the heart of the building, and rise to the skylight, with galleries around on the third and fourth floors. Round this well are grouped the examining rooms of the various departments. Over the doors of these are signal lights, different colours indicating the member of the staff required by the patient. Viewing-boxes for the examination of X-ray plates are located in the corridors.


First floor plan. Cleveland Clinic
Second floor plan. Cleveland Clinic
Third floor plan. Cleveland Clinic
Fourth floor plan. Cleveland Clinic

Crile Clinic, Cleveland, Ohio

Immediately associated with the clinic is a hospital for 150 patients. All patients pay according to their means.

8. X-ray Departments.

The increasing importance of X-ray work is nowhere more fully recognised than in America, where the use of X-ray for diagnosis has reached such a point that in one important hospital more than 85 per cent. of the patients are now X-rayed.

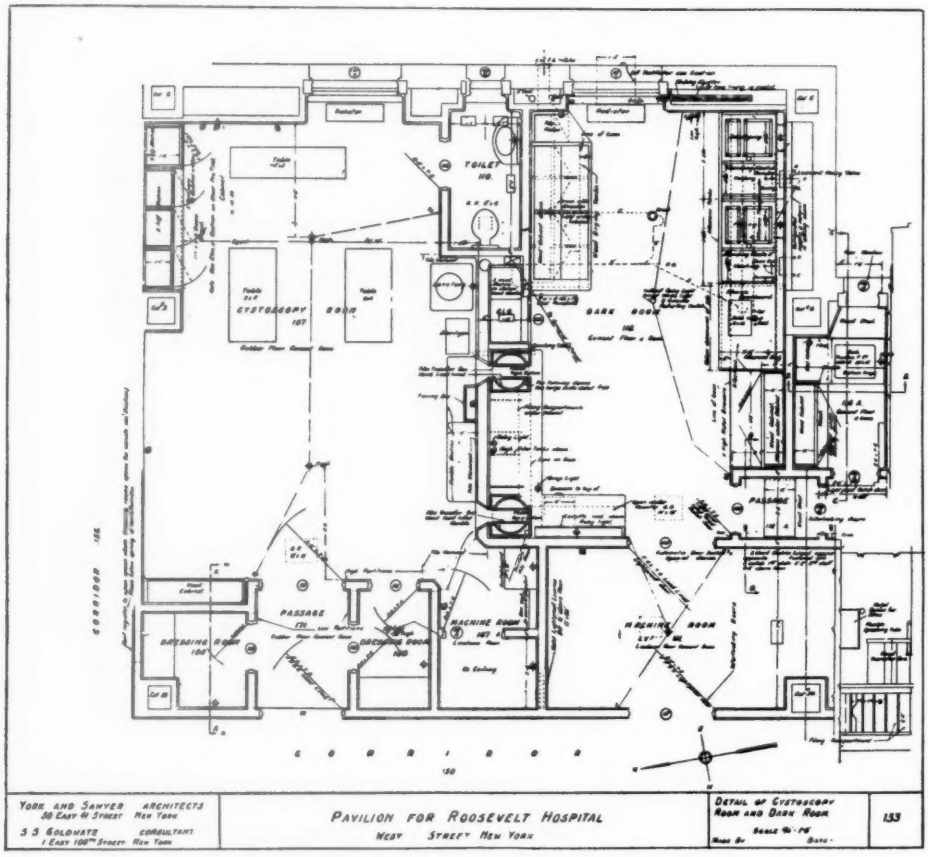
The result is that there are now many well-planned and splendidly equipped X-ray departments, and one of the best of these is to be found at the Roosevelt Hospital, New York City, where the architects, York and Sawyer, worked out a plan in conjunction with Dr. Steiner. The department is situated on the ground floor, near the operating block, and conveniently placed for the out-patients, and consists of a radiographic room, dark-room with special light-excluding pass-boxes of a revolving type, cystoscopic room, fluoroscopic room, viewing room, with an excellent set of viewing-boxes made of enamelled steel, and filled with Cooper-Hewitt lights, and a room for files. The treatment rooms are in a corner of the building, cut off by corridors from the rest of the department, and special precautions are taken against rays, as the whole of the walls and ceilings are treble-lined with lead, wire-mesh, and finally glazed tiles, and the floor is lead and cork.

There is another very fine X-ray department at the Boston City Hospital, in the New Thorndike Memorial Building. Architects, MacGinnis and Walsh. This department is on two floors—on the ground floor, waiting rooms, radiographic rooms, viewing room, and records; in the basement are the treatment rooms (with machines enclosed in a room 6 feet wide, between two treatment rooms in every case), an exceptionally fine dark-room, with smaller rooms for wet plates, plate-loading, etc.

Special attention has been paid to the ventilation —an important point, unfortunately too often overlooked with resultant damage to the health of the assistants. There is a lecture hall at the end of the corridor, two floors in height, for the use of the department; so that altogether this is in

9. Out-Patients' Department, Boston City Hall, Boston, Mass.
Architects, Coolidge and Shattuck.

This is a typical example of an American Out-patient Department attached to an important city hospital. It was opened in 1925; the number of



Roosevelt Hospital, New York City, X-Ray Department
York and Sawyer, Architects

many ways a model of what an X-ray department should be. The colour of the walls found to be most satisfactory by the X-ray men is orange or buff, and several departments have plastered walls coloured to these tints, and the floors are usually tiled like an operating theatre, or covered with battleship linoleum with a border and skirting of terrazzo.

visits is 800 per day, and this number could be doubled.

The building is seven floors high and has frontages to two streets, the patients entering from one and are discharged into the other. There is a tunnel connecting the entrance hall with main building. In planning this building an attempt was made to give as much privacy to each patient

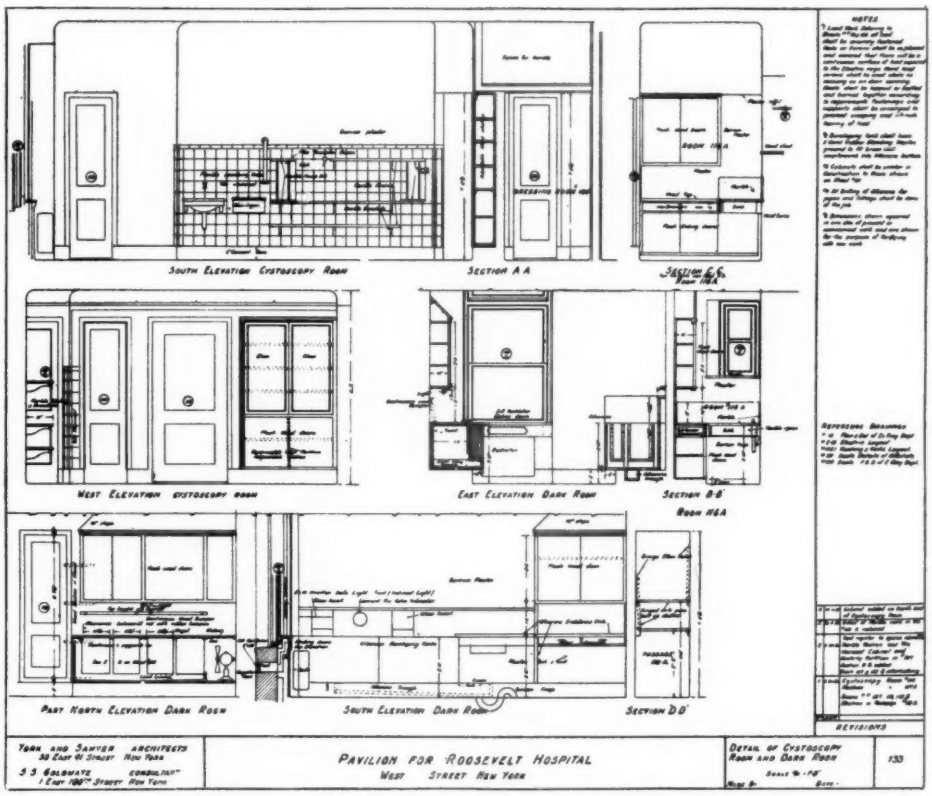
as possible ; this explains the inside corridors and the small examining rooms.

There is a lavatory in every room for the use of the doctor. All patients go to the information desk in the entrance hall ; an old patient shows his cards, receives a clinic number and is sent to the right department, where his record awaits him, having been sent along by a Lamson carrier from the record room. The new patient is sent in to the waiting room at the rear of the desk and is seen by the admitting physician.

The departments are grouped together according to their nature : therapeutic and massage in one wing of the same floor, cardiac, diabetic, nephritic on another, the eye, ear, nose and throat are on the fifth floor, the skin and nervous diseases on the top floor. The departments are divided by a central corridor with male one side and female the other.

There is a waiting-room placed centrally on every floor, with a floor-secretary's desk ; the elevators open directly into the waiting-room.

The floors of all toilet-rooms, entrance hall, stair-halls, etc., are of terrazzo, the rest of the building battleship linoleum.

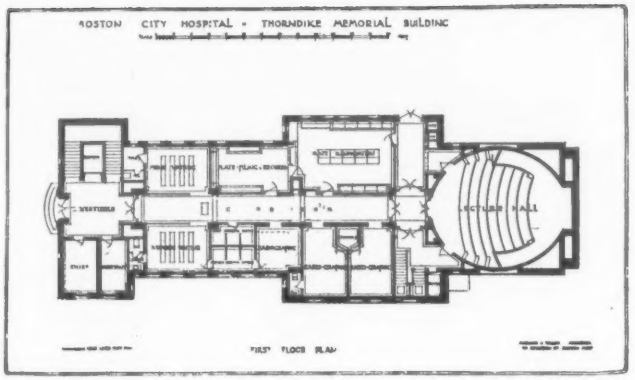


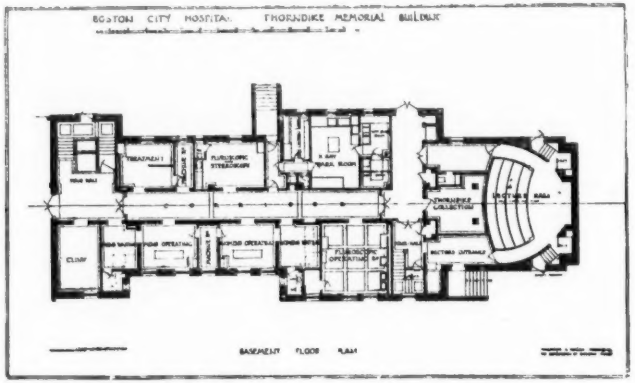
Roosevelt Hospital, New York City. X-Ray Department
York and Sawyer, Architects

The following points of construction are summarised from the detailed description of the hospitals visited :—

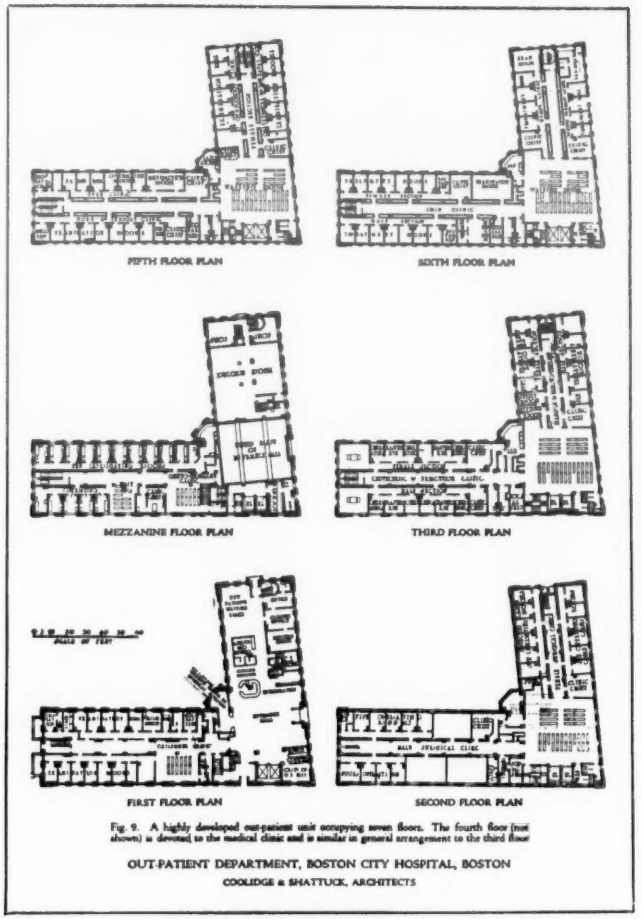
Doors.—The flush hospital door veneered with mahogany is usual for all patients' rooms, and the fanlight is usually solid to match the door.

Windows.—The sash window is almost universal,





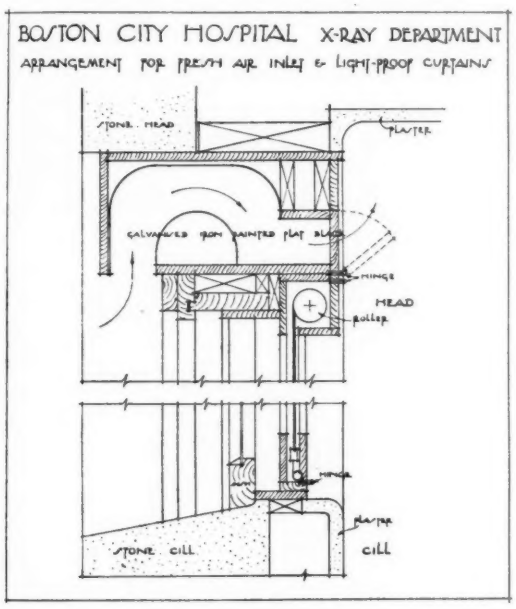
BOSTON CITY HOSPITAL, X-RAY DEPARTMENT
Macginnis and Walsh, Architects


FIFTH FLOOR PLAN
SIXTH FLOOR PLAN
MEZZANINE FLOOR PLAN
THIRD FLOOR PLAN
FIRST FLOOR PLAN
SECOND FLOOR PLAN
Fig. 9. A highly developed out-patient unit occupying seven floors. The fourth floor (not shown) is devoted to the medical clinic and is similar in general arrangement to the third floor
OUT-PATIENT DEPARTMENT, BOSTON CITY HOSPITAL, BOSTON
COOLIDGE & SHATTUCK, ARCHITECTS

BOSTON CITY HOSPITAL
Coolidge and Shattuck, Architects

with or without the fanlight over, and with or without bars according to the design of the architect. A small openirg about 7 inches by 2 inches is frequent in the bottom rail of the sash. Jalousie shutters or sunblinds are necessary in the summer.

Floors.—Hardwood floors are used in offices, etc., sometimes (but rarely) in patients' rooms. The most usual floor is " battleship " linoleum laid on concrete with a margin and base of terrazzo, rubber tiles for corridors, unglazed tiles or terrazzo for operating theatres. The terrazzo is divided into squares about 3 feet or 4 feet by metal strips.



AMERICA. DETAILS

Rubber floors and dadoes are occasionally used in operating theatres.

Ceilings.—Sound-proofing materials are frequently used for ceilings in sheets, such as " Celotex " and other patent materials.

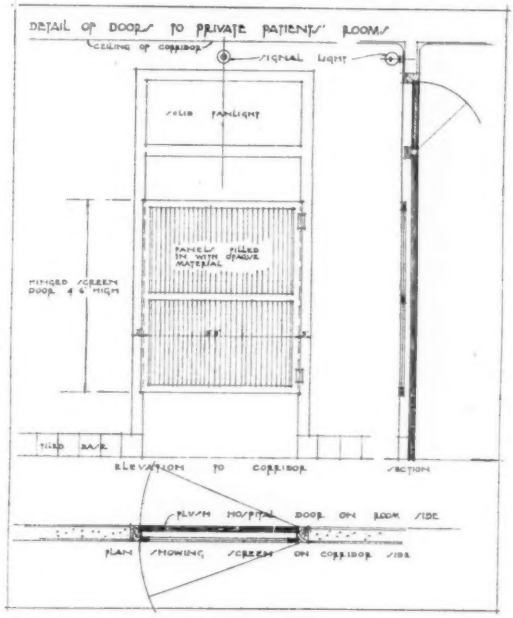
Fittings are increasingly made of metal. Cabinets, linen cupboards, door frames, doors and windows, glazed divisions to form cubicles, beds and ward furniture.

Signal system has become almost universal. The patient calls the nurse by pushing a button which turns on a light over the door and on the annunciator at the nurses' station and superintendent's office.

Conclusion.

It is difficult to arrive at any very definite conclusions from a survey which includes countries of greatly different climate and conditions, but there are some tendencies which are marked everywhere.

The large ward of 25 or 30 beds seems to be a thing of the past, and smaller units are the rule—16 beds fairly frequent, but 12 beds usually pre-



AMERICA. DETAILS

ferred. The number of rooms allocated to private and semi-private use is the most marked feature of the present-day planning, though naturally less marked in Europe than in America. The individual sanitation which accompanies it in the latter country is perhaps rather overdone ; it must mean great expense in the cost of plumbing and fixtures and entail a considerable amount of labour in the running of the hospital, but the provision of hot and cold water in private rooms and rooms for nurses and staff is of great advantage.

The cross-ventilated lobby, as we have seen, is no longer insisted on to the same extent, partly owing to the confidence felt in modern plumbing and partly on the ground of cost. The central corridor, on the other hand, found in so many American hospitals, is not a feature of the plan which we should like to see followed over here, and in this respect the European hospitals would appear to have the advantage in point of cheerfulness and health. In comparing the vertical and horizontal systems of planning, there are points in favour of both, but on the question of extension (which is of primary importance to hospitals), there is little doubt the horizontal system is easier to handle. Mechanical efficiency is found most highly developed in America, but reliance in mechanical means has certain drawbacks (and the case of mechanical ventilation may be given as an instance) but the saving of labour is such an important side of modern life that we ought to welcome any attempts made in that direction.

Oil-fuel installations are being adopted increasingly, as they result in the saving of labour caused by the handling of coke and ashes, and they also have the advantage of greater cleanliness.

Finally, the question of architectural interest and beauty is now recognised to be just as important for hospitals as it is for banks, churches and private residences, and it is very encouraging to find that this side has been so much more considered than it used to be in the last century. There is a determined effort to make the buildings attractive both externally and internally, and each country has worked out its own salvation in this respect. I think everyone will agree that the general level of hospital design is now very high, and the fact that funds are invariably limited has not been altogether a disadvantage, and has resulted in a dignified simplicity in many cases which expresses the character and purpose for which the building has been erected.

In conclusion I should like to say that I have invariably met with kindness and friendliness on my travels, and that architects, medical and nursing staff have taken no end of trouble to show me all there was to be seen and supply me with plans and information, so that my task has been made a very pleasant one, and I realise that those of us who are brought into touch with the hospital world by our work are very fortunate.

COLUMBIA PRESBYTERIAN HOSPITAL, NEW YORK CITY
Gamble Rogers, Architect

Discussion on Mr. Pearson's Paper

THE PRESIDENT, MR. E. GUY DAWBER, A.R.A., IN THE CHAIR.

Mr. W. A. PITE [*F.*]: After looking at what I may describe as the fearful and wonderful things Mr. Pearson has shown us to-night, one is almost staggered at the vastness of the detail which hospital authorities have to face, and which their architects have to assimilate and place upon paper, in due order, for the consideration of their clients. One is cheered to learn that Mr. Pearson, during his travels, found architects in the States who have the same difficulties as we have here.

The principal feature in any hospital is the patient in the bed; everything must centre round and radiate from there. Mr. Pearson, in his paper, has referred to Fifth Avenue Hospital, New York, and the wonderful method which the Americans have of centralisation and control; that is a little term I have found of immense use, though I have used it in a rather different way: centralisation and radiation—*i.e.*, everything in the plan should be dominated from the administrative centre, from the sister-matron's office, and all the organisations which are centred there.

It is most useful that we architects should realise what an enormous amount of excellent work is being done not only in the United States of America, but also on the Continent. One feels great admiration for that beautiful hospital at The Hague, by Mr. Cuypers, which Mr. Pearson has shown us. In this country we have more sympathy with the horizontal planning than with the vertical, and I do not suppose we shall bring ourselves to build hospitals on the vertical principle; the main reason for which planning is climatic. In New York they have great extremes of temperature which we have not in this country, while on most days of the year we are able to open the windows of our wards.

I was much interested to hear all that Mr. Pearson had to tell us about private wards and private patients, because one feels that there is a great future for the pay wards and pay rooms, and also for pay blocks. I think that in this country we shall soon see large nursing institutions, where patients can have the advantage of the various treatments, and where surgeons, physicians and specialists all do team work together.

Mr. Pearson to-night has given us a great deal to think about, and I have great pleasure in proposing a vote of thanks to him for his paper.

Dr. JANE WALKER, J.P.: There are a few things I should very much like to say about Mr. Pearson's most excellent paper. I also have been in America, and I have seen a good many hospitals there, and I think that those who know the work of the firm of which Mr. Pearson is a very honoured member will agree with me that America has no real monopoly of the best hospitals in the world. The worst hospital I have seen in my life was in America; so was the best, a mental hospital, near Buffalo, not far from Lake Erie.

There is one thing which occurred to me—I do not know whether anyone else thought of it—that in considering the shape of wards, there has been no mention of round wards. There used to be a great vogue for them. I was myself a physician in a round ward for many years, and there is a great deal to be said for this form, from the patient's point of view. As Mr. Pite said, the patient is the element which should be considered in a hospital. If you think of a round ward, you will see that no patient is lying immediately opposite another patient, nor is a patient lying opposite a window. Those two things are so cruel and so maddening to people in a long rectangular ward, with a patient on one side and a patient on the other, and a window on both sides, the patients staring at one another and at the window all day long. Though I doubt very much whether people in this country would all like to have a single ward, still I think there should be a better arrangement of wards than the rectangular ward, with beds facing each other. I should like to see wards with one row of beds, not two.

Mr. Pearson said, I think, that one person estimated that 30 per cent. of people would like to have single wards; I do not think there is so large a proportion in this country. I know the institution of which I am Medical Superintendent—the East Anglian Sanatorium—has a unit of two or four, and there are very few working-class patients under my charge who care to be for weeks or months in a single ward.

Mr. Pearson said nothing about children's hospitals, I do not know whether he went to any, or whether there were departments for children in the hospitals he visited, and of which he has shown us views. If there were, I feel that children should be kept apart from men and women. They certainly should not be in the women's wards; if they have to be with grown people at all, they should be in the men's wards. Women have as much to do with children every day of their lives as they wish to have, and when they are ill I think they might be spared the screaming, laughing, crying and wailing of the children.

I have very much pleasure in seconding the vote of thanks.

Sir HOLBURT J. WARING, F.R.C.S.: I am not a member of your Institute, though I have had the pleasure of coming here on several occasions. I appreciate your invitation to attend this evening in connection with Mr. Pearson's lecture, to which I have listened with great interest.

With regard to the remark which was made that the Americans pay more attention to the staff of the hospital than to the patient, I think Mr. Pearson might have gone further and said that Americans pay a much larger share of attention to the accommodation, equipment and the convenience of the staff than we do. But in addition—and this is the main key—they provide for their staff what I may speak of, for lack of a better word, as the plant and machinery for their work, for attending to the patient, a fact which is often forgotten in our country. At the present day, when chemistry and physics and the

biological sciences have made a big advance, and can be so well applied to the investigation and treatment of patients, a large amount of plant and machinery is required. And that point, especially in a number of municipal institutions, is not sufficiently realised ; the authorities governing them seem to imagine that the doctor can carry on his investigations and make his diagnosis and go on with the treatment with rather limited supplies such as he has been having in the past. That is impossible, and the sooner the public authorities and private individuals see the facts of the case, and provide or render available proper appliances, the better. That is the explanation of the remark which the reader of the paper made as to the difference between Americans and Englishmen.

As I have seen a good many of the hospitals which have been referred to to-night, I am able to speak from some personal experience. Concerning the vexed question of the one-bed ward, or the two-bed ward, or the small ward, this must be looked at from more than one aspect. Take the new hospital in Copenhagen ; it is a beautiful hospital, well fitted up. It has beautiful arrangements, and the wards, though comparatively large, are divided cross-wise, so that there are compartments for six or four beds. That may be an advantage in regard to the light. But it has two disadvantages in connection with what we may call a voluntary hospital, one which is maintained by public subscriptions. First, a hospital arranged in that way is much more expensive to run, from the point of view of nursing and in regard to staff, than a hospital which is arranged in the more or less traditional manner. I have discussed this point with the Surgical Superintendent of that particular hospital, and have gone into the question of the expenses. Another strong objection—though, perhaps, some of you may say it is an advantage—is that in our large voluntary hospitals we have to train a large number of young men for the medical profession, so that they may go out into the world and carry on their work in the best way and give the best attention and treatment. These young men and young women should be given every possible advantage of instruction on actual patients. That is one of the objections in regard to the hospital at Copenhagen ; it has been found by the people there that it is unsatisfactory from the point of view of instruction of students. Those two points may not appeal to the world in general, but they certainly appeal to those who have to work a voluntary hospital, and who at the same time are required to educate the rising generation of medical men.

You must bear in mind that all the hospitals which have been described are different in connection with the admission of patients from those in this country. If you take the Copenhagen Hospital, which has been referred to, you find there is a large number of patients who are sent in by the municipality, and there is a considerable number of patients who pay. Again, in some of the American Hospitals, perhaps, only one-fifth of the patients are what would be called " charity patients." It is a very different state of affairs in our hospitals, for in the voluntary hospitals of our country at the present time perhaps nineteen-twentieths are charity patients. That makes a great deal of difference in regard to planning a hospital. I strongly hold that in hospitals, voluntary or otherwise, in the present condition of economic affairs, accommodation should be provided for different classes of patients, and where patients require a single room they should be able to have it on payment. The accommodation could be graded according to the means of the patient.

It is beyond my comprehension why the rich in this country are content to be treated, when they are ill, in what are often little better than third-class lodging houses. They seem to be satisfied ; all they seem to want is to get into a small house, in a street which has been respectable, and in a nursing home of a set type.

Passing on now to the more technical points in this paper, I should have liked to hear something in regard to the so-called pavilion arrangements as to wards, the method of heating, the material used for ward floors, etc. The pavilion system has been in vogue in this country 50 or 60 years, and very little variety has been evident in it. There have been slight modifications, but the main principle has been the same ; that is to say, each room in which patients are placed has got cross-ventilation, two rows of beds being there. Before that period we had wards which used to be called " spinal wards," in which were four rows of beds. In some places there now seems to be a tendency to revert to modifications in that regard.

I should have liked to hear the lecturer's views on the " sanitary tower," which is said to be more or less universal here. I look upon a sanitary tower in a hospital as not a very sanitary feature, and I think it might be arranged better than it is. In building and designing hospitals, I rather discount the retention of the sanitary tower. It, of course, has served its purpose in a way, in that it has taught nurses and doctors, and the people in general, clean ways. There are other means. I believe that in some American hospitals they have built " sanitary rooms," and that they are found to be much better than the so-called sanitary towers.

I should have liked the lecturer to make some reference to the value of what may be called the " glazed tile " in the walls, especially of the theatres in hospitals. I have felt doubt as to their value, particularly in operating theatres. There is always a roughened area between the separate tiles or plates. I do not know whose fault it is, but up to the present no one seems to have evolved a means of making all those joints between the tiles smooth and glazed, so that there shall not be a surface favourable to the lodgment of micro-organisms. I do not, for that reason, think these tiles are the best solution for the walls of operating theatres and wards. I am told that a smooth cement can be got, of whatever colour may be the fashion of the moment, but I have never found a place where it has been used. It is a rather important detail of hospital construction. For a long time it has been the fashion to have these expensive tiles lining operating theatres, but I think architects and builders would produce better results by the methods I have mentioned, and they would be cheaper.

Mr. Pearson regrets that he did not see the operating theatres in Rochester, United States. Well, he has not missed very much in that respect in regard to seeing

anything very elaborate. Those theatres are very good for the work, but they are beautifully simple, and that is the keynote of the present day : simplicity and perfection, not multiplicity of detail.

With regard to children's hospitals, that is a very vexed question. I agree that children are better in wards of their own, but hospital administrators do not always like that.

The architectural aspect has naturally been raised here to-night, but though that is interesting, it is necessary to take into consideration the economic aspect. It has been said that you should provide architecturally beautiful hospitals for patients. But the patient does not see much of the architecture of the hospital. Perhaps he sees it when he goes into it, but he does not look at it when he goes out. To my mind, it is much better, in the case of hospitals, which are continually changing, that they should not be elaborate in construction nor yet architecturally beautiful ; I think they should be made to serve their purpose and should be built economically.

With regard to the bandage and dressings question, and whether bandages and dressings should be sterilised and used again, I have often wondered why, in this country, if everything can be made clean by sterilising, bandages, etc., are not used again after passing through this process. But it is not done ; it is contrary to tradition. If you go to Paris or to some German cities, you will find it is constantly done, and I think it is economically sound. If you can sterilise the bandages, etc., what does it matter if you use them twice or twenty times so long as they are efficient for their purpose ?

With regard to nursing homes and nurses, I am not quite certain whether, in the future, nurses will not go on strike and say they will not live at " the shop." I am not sure that you will not build hostels and residential houses, so that they may live away from their work. I think it would be an advantage, but I am in a minority as regards that.

I would like to mention one other point. I think that if our Government, or our municipal authorities, were to spend as much money in providing first-class maternity homes for the arrival of the babies as they spend on providing accommodation for the mentally unfit, it would be all the better for the country as a whole. A municipality, or a county, will erect most elaborate buildings for the reception and treatment of the insane, but they will do comparatively little in the way of providing maternity homes for the mothers of the working classes when they are giving birth to their children. That is a disgrace to the country, and perhaps architects, when they are designing hospitals, will have some regard to that point.

Mr. W. A. PITE : May I say a word which may comfort Sir Holburt Waring ? We are now getting rid of sanitary towers and annexes ; they are regarded as rather a thing of the past.

Dr. LOUISA MARTINDALE : I would like to say, publicly, how much I admire the paper which Mr. Pearson has read this evening, and especially the way in which he has illustrated it. It seems to me that his illustrations are extraordinarily interesting to those concerned with hospitals. I have had the good fortune to visit many European hospitals and hospitals in America, and if I wanted to see a hospital which well illustrated the pavilion system I should go to Germany. In that country, especially in Frankfort, Berlin and Hamburg, they have extraordinarily well-run hospitals on the pavilion system, but they are for large numbers of patients. When you have two, three or four thousand patients you can make a great success of the pavilion system—large buildings with 100 or 200 patients in each, in large areas of land. In the case of the new hospital in Dresden there are beautiful gardens surrounding the pavilions, the chief surgeon and the chief physician living on the spot, in their own houses, the whole institution being well arranged from that point of view. In America, it seemed to me, the patient received a very great deal of consideration in the hospital and yet I was struck by the facilities for post-graduate work. At the Mayo clinic I found that everything was made easy for one to learn in the quickest time possible. Some of the theatres had one particular advantage—namely, mirrors which were so placed that when 100 or perhaps 200 post-graduates were watching an operation—and some of them could not see by looking down at the patient—the stages of the operation could be followed by looking in these mirrors. In Philadelphia I was much impressed, in the Gynæcological Hospital, by the beautiful single wards for private patients. Even these patients were used for teaching purposes, the operating part of the theatre being divided from the spectators' gallery by a falling metal screen which was only raised when the patient was under the anæsthetic.

Mr. C. H JAMES [*F.*]: I would like to ask if Mr. Pearson can tell us what effect, if any, the appearance of wards has on hospital design. It seems to me it does not make much difference, one way or the other, whether one is operated on in an ordinary room which has ordinary windows with closing bars thick with dust or in a room with sheets of plate glass. I have been operated on about half a dozen times in various places, including a girls' school, and I do not think my recovery was any slower than it would have been in an ordinary hospital.

Mr. C. E. ELCOCK [*F.*] : I also would like to thank Mr. Pearson, and to ask him if he can let us know—not now, as it is too late to go into it—some detail of things like floors. A lot of research is wanted in some of these matters, and we particularly want an understanding as to what is being done in hospital flooring of all kinds.

Mr. E. STANLEY HALL [*F.*] : I would like to support the vote of thanks to Mr. Pearson. I would only ask him this : Which of these hospitals, if any, are for infectious cases ? They struck me as being nice and charming for surgical work, but I could not understand how they would deal with infectious illnesses in these American hospitals.

The PRESIDENT : We have had a most interesting paper and discussion, and what struck me—and it probably struck many of you too—in looking at those photographs of hospitals which the Americans have treated from the vertical point of view, was that some of them looked exactly like skyscrapers, which is different from our English system. Our hospitals are two or three storeys high and spread over a large area of land. I

think this is a matter we could deal with here, where we are hampered by confined areas, making them floor on floor, on the American system.

Sir Holburt Waring mentioned the use of glazed bricks and glazed tiles for operating theatres. That was a thing of the past years ago. We have so many patent cements and fine enamels that the question no longer exists.

Mr. James raised an extraordinarily interesting point, as to the places in which operations were carried on during the War. It seemed to have no effect on the successful termination of the case whether it was done in a barn or in an up-to-date operating theatre.

Mr. PEARSON (in reply): I will not endeavour to answer all the points which have been raised. I felt that my job to-night was to tell the story; and leave you to draw your own conclusions from it, because I visited so many countries, and they are all working the matter out in their own way. I feel that my instincts are with Mr. Pite. The hospital which seemed nearest to our own was the Dutch hospital. I feel, as Sir Holburt Waring said, that we are somewhat too hidebound in this country by tradition, and that we should reconsider such matters as the sanitary tower in view of modern plumbing.

Dr. Walker asked whether I had seen any children's hospitals on my travels. I did not, but I saw an amazing number of babies; I was always being led into babies' wards. And I realised there is a difference in the way they bathe the baby in America compared with the method here.

Dr. Walker raised the question of round wards. I do not think I saw an instance of a round ward. I am afraid that, as a firm, we put a round ward only when we cannot put anything else on the site.

Mr. James asked whether war surgery had any effect on hospital planning. I think it will have eventually, though the change is slow in coming. The War upset many notions. Fortunately, I had the great luck to be a patient in a house on the Malvern Hills, which was designed by Mr. Ernest Newton, and though it was designed as a private residence and not as a hospital, it made a charming hospital when it was used for that purpose, and I regarded it as ideal.

Dr. Martindale recommends me to go to Germany. She advised me to go to America, and I acted upon it, so I have nothing left to me now but to go to Germany and see the pavilion system.

The Old Ashmolean Building

In commemoration of those who had most to do with the foundation of the Ashmolean Museum in the seventeenth century, a window containing four memorial panels, which has been placed on the staircase of the old Ashmolean Building, was unveiled on 17 May by the Chancellor of the University (Lord Cave).

The two larger panels are in memory of Sir Christopher Wren, and of Elias Ashmole, who handed over his " treasures " to the University, and so formed the first natural history museum in this country. In the other panels are commemorated Robert Plot, the first curator, and John Tradescant, whose collection of curiosities passed through the hands of Ashmole to the museum. In each light the shield of the benefactor commemorated is shown in bright colours and embellished with representations of distinctive instruments or relics. Wren's compasses and scientific instruments and Ashmole's books are shown. Before the unveiling the window was formally handed over by representatives of the donors to the University at a ceremony in the Divinity School, over which the Chancellor presided.

The President of the R.I.B.A. (Mr. E. Guy Dawber, A.R.A.) handed over the Wren Light on behalf of the Royal Institute, whose members had subscribed to the memorial. The President said:

" No greater honour, perhaps, could fall to any man of my craft than to be chosen, through the accident of circumstance, to perform on behalf of his fellow craftsmen such an act of homage to the memory of Sir Christopher Wren as the presentation of this memorial window.

" I am, however, emboldened to do so by the fact that although a university training may, and doubtless does, give a wide range of erudition and general culture, yet at the same time, it seldom gives knowledge or appreciation of the art of which Sir Christopher Wren was so great an exponent.

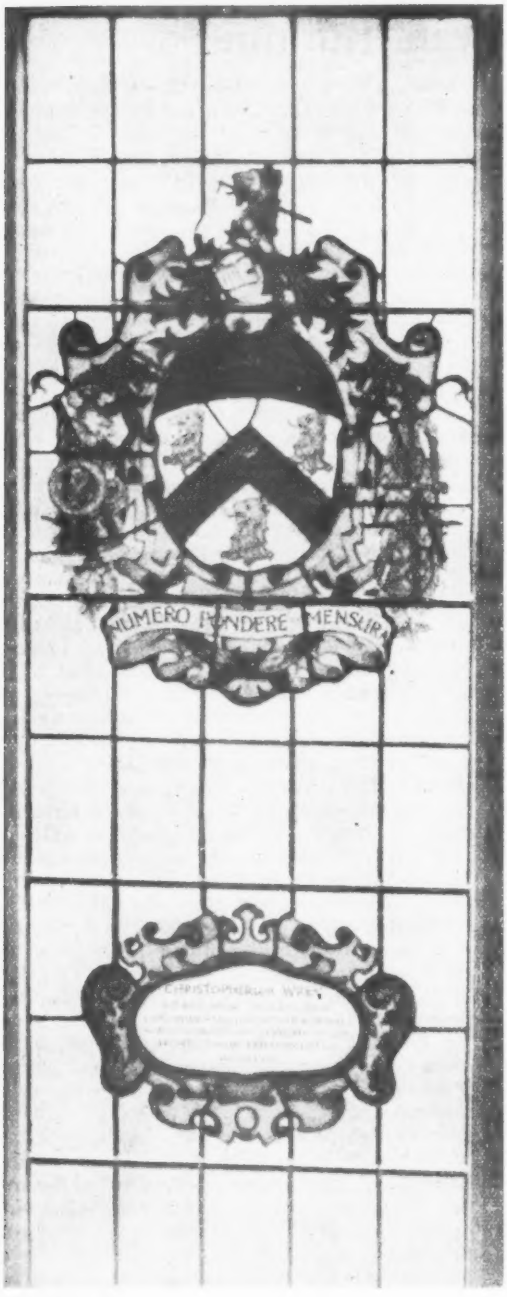
" I cannot but wish that the study of architecture should be considered as part of the ordinary education of every gentleman, as it used to be in the days of Evelyn and others who followed him. Of Wren himself, to-day, it is unnecessary to say much. We all know his history, his rise to eminence in his profession, his great work at St. Paul's and his other public buildings. There are those, however, who find difficulty in understanding how he could design and carry through his masterpieces with so meagre an amount of recognisable architectural training, as could have been possessed by him in 1662, when he accepted the position of Deputy Surveyor General, and was instructed to report on work necessary in old St. Paul's and Windsor Castle, and to complete Inigo Jones's Palace at Greenwich. The amazing thing is that Wren should have been entrusted with this work, when it was known that he was without any experience in architecture. A position of such serious responsibility would have frightened a man of less confidence in his own powers, but Wren's resource and incomparable quickness of intelligence enabled him to avoid disaster. He was a man of extraordinary natural endowments, a ' miracle of youth,' as Evelyn called him, and he appears to have been able to grasp very quickly any subject to which he applied his mind. His remarkable knowledge of mathematics helped him in problems of construction, to the solution of which he also brought the spirit of an explorer in the fields of science. The further fact that he was an astronomer of European fame shows that he was gifted with imagination.

" The work that Wren did was not the work of rashness but that of sound scientific knowledge, and though we attribute to-day much to the skilful operatives with whom he surrounded himself yet his was the genius that surmounted difficulties of gravitation and durability. His early work was, as might be expected, crude and tentative, but experience brought with it facility, and he learnt his craft as he went along. He is an outstanding example of an architect who received his training, not at the drawing board, but on the scaffolding of his buildings. He followed his own path and appears to have been little influenced by Inigo Jones, or his busy disciple John Webb, who both drew their inspiration in the main from Palladio.

" Wren had an outlook of his own, and while working in the classic style of the day, he allowed himself an elasticity of treatment in his designs from which less original spirits shrank, breaking with tradition in many cases, and following it in others. His work combines a solution of constructional problems with a boldness and restrained freedom of architectural treatment such as to justify us in regarding him as the greatest of our English architects.

" His outstanding works are, of course, St. Paul's Cathedral and the City churches. In domestic work he has no great record, but Hampton Court, with its gracious simplicity and quiet charm, shows how well he would have dealt with it had it come his way in greater volume.

" It was perhaps fortunate that Wren never went to Italy, and made but a short visit to France, for this made him rely upon his own inspiration and the architecture of his own country, and develop his national powers of mechanical invention into a faculty of architectural design almost without a parallel in range and resourcefulness. Some technical details, on which he may be open to criticism, are trifling in comparison



with his greatness, both as an architect and as a man. His great conception of architecture and his wonderful fertility of idea in planning and construction all put him on a level far above his fellows.

" With all this, it is curious to observe how short his immediate influence was, for, at the close of his career, architectural taste reverted to Palladianism, largely influenced in this direction by the publication of the designs of Inigo Jones and Webb. Yet the common-sense and simplicity of Wren pervaded the domestic work of the eighteenth century, and the fine craftsmanship which he encouraged, and to which he gave so great an impetus, continued to adorn our houses until the close of the Regency period and the introduction of railways and machinery. Those who think that his epitaph, ' Si quaeris monumentum circumspice,' only applies to his one great building, and that it should only apply to it, forget that it takes a far wider meaning, and if we wish to look around for a monument to Wren's genius, we shall find it in the great tradition of refined building that survived so long in our country and was largely due to the influence of the man whose memory we are honouring to-day.

" I often wonder what Wren would think could he but come to earth and look around this fair land, and see on every side, in almost every town and village, the degradation of building to-day, the sort of dermatitis or architectural skin eruption we are suffering from. Is it not a sad falling away from the gentle and dignified building of his day, and may we not hope that some means can be found to control this outbreak ?

" The armorial window which has been presented by the Royal Institute of British Architects, includes several novel features. First, the crest which Mr. Gunther copied from an engraved plate presented by Wren. Secondly, the swags by the sides of the shield, which are based on Grinling Gibbons' work at the Admiralty. They include the astronomical instruments used by Wren when he was Savilian Professor and his own pair of compasses now in the possession of the Royal Society. Thirdly, his monogram ' C.W.' from the backs of his books in the Savilian Library.

" The inscription, in what I understand is Mr. Gunther's elegant Latin, records the fact that in this year 1927 the Royal Institute of British Architects has honoured the memory of Sir Christopher Wren, Savilian Professor of Astronomy, famous for his wonderful buildings.

" As the object of the ' Lewis Evans Collection ' is largely the illustration of the History of Science in Oxford, there is perhaps hardly any man more appropriate for commemoration than Christopher Wren.

" On behalf of the Royal Institute of British Architects I commit this window to your care."

(*For particulars of the window see page* 528.)

The Study of Architectural Design*

BY THEODORE FYFE [*F.*]:

This is a serious and purposeful work emanating from America. Mr. Harbeson is Assistant Professor in Architectural Design at the School of Fine Arts, Pennsylvania University, and Instructor at Pennsylvania Academy of Fine Arts. With these qualifications, his explanation of a system of design which is applied by him, presumably in both of the institutions mentioned, is bound to be of value, especially when he inserts 376 illustrations in the text.

The book begins with a brief account of the Ecole des Beaux-Arts method in Paris, admittedly the pattern for his own system. It then proceeds to a discussion of the main points in his system—the "analytique" or order problem; the Class B plan problem; the archæology projet and measured drawings; and the Class A problem. There is a further section on the Sketch problem and Prize problems which is one of the most attractive in the book, as it illustrates many of the well-known studies and finished designs of the French prize winners. In the last section, dealing with some general matters, including perspective, two admirable life studies by Mr. Bellows are illustrated. There is a full index.

FIG. 371.—ELEVATION OF DESIGN FOR A CREMATORY. Class A Projet, by T. P. Yang

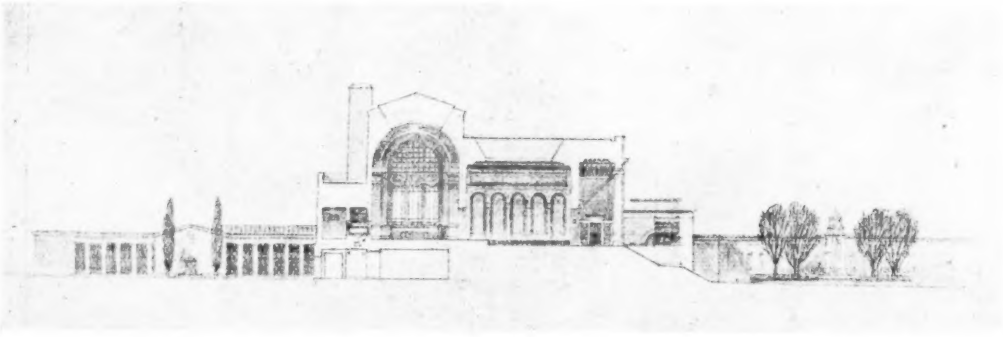


FIG. 372.—SECTION OF DESIGN FOR A CREMATORY. Class A Projet, by T. P. Yang

* *The Study of Architectural Design*, with special reference to the program of the Beaux Arts Institute of Design. By John F. Harbeson, A.I.A. [The Pencil Points Library: Pencil Points Press, New York, 1926.]

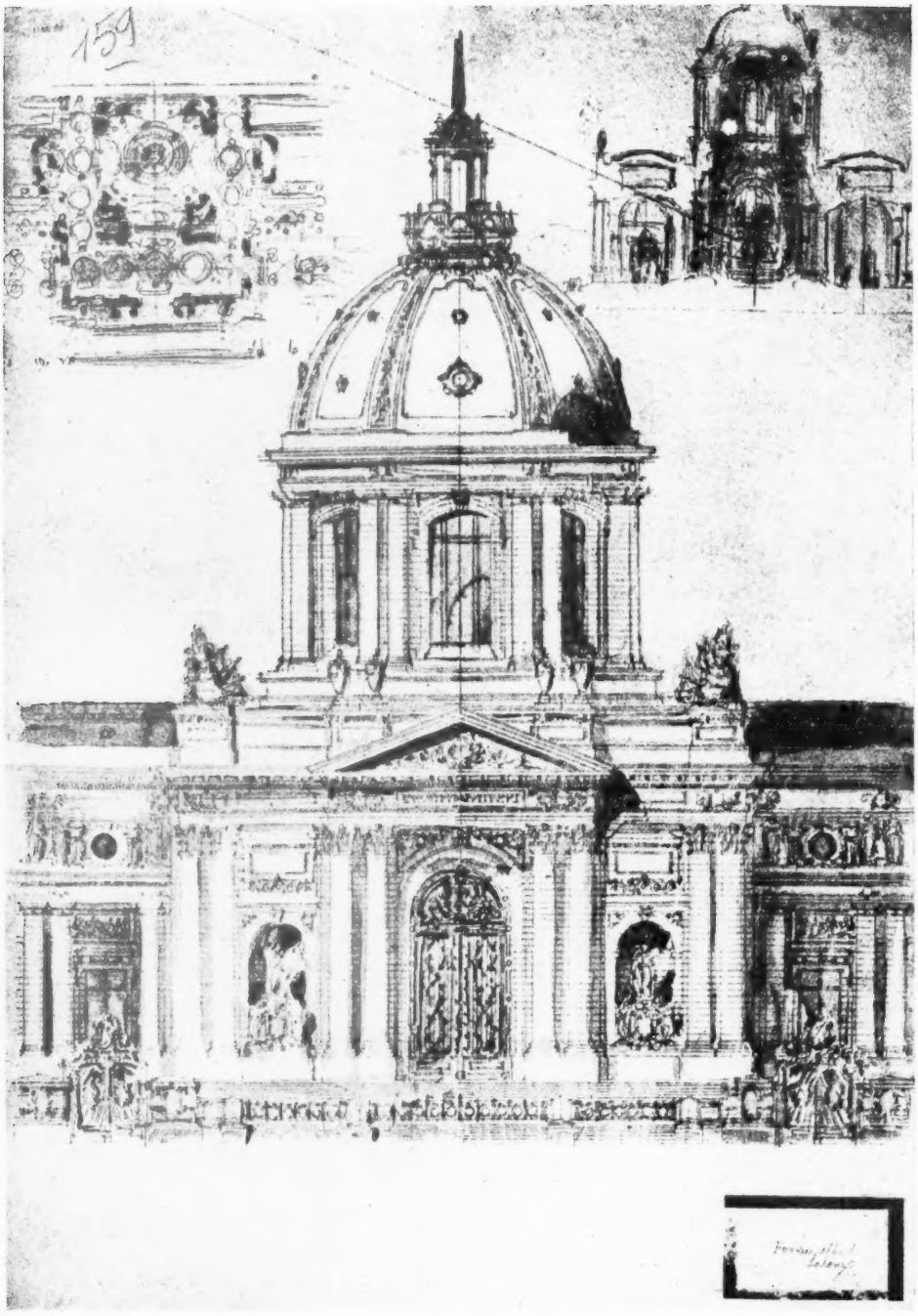


FIG. 321.—DESIGN BY M. ALBERT FERRAN, PUPIL OF M. LALOUX, FOR "LE PAVILLON CENTRAL D'UN PALAIS DE L'INSTITUT"
First Preliminary Competition, Prix de Rome, Ecole des Beaux Arts

The whole work merits the careful attention of those responsible for architectural education in this country.

It is a distinctly good feature of the book that it has many photographic illustrations of old work, some of which are side by side with modern renderings of them; but the illustrations throughout are most excellent, especially (at least to the casual reader) those which accompany the analysis of the work of the senior students.

The book is, of course, frankly onesided. It deals with design only, and design very much on its elaborate presentation side. It is chiefly by examination of the masterly sketch designs of the first preliminary competition for the French Prix de Rome that we get a substantial reminder of the constructive basis of design. (See Fig. 321, here reproduced.) This, of course, raises what is the whole point and nothing but the point—the sort of training the American student really gets before he produces his Class A problem. (See Figs. 371 and 372 herewith.)

Without attempting to answer that question, we can at any rate admire the broad way in which Mr. Harbeson treats his subject. He is not content with the architectural problem comprising the single unit, but devotes a considerable number of pages, and many illustrations, to the large lay-out schemes of Washington and Chicago. This combination of architecture and town planning gives a distinctive character to the book, which is, on the whole, one for the advanced student and instructor rather than for the elementary student.

One is already familiar—too familiar perhaps—with the French words that are used when dealing with a system of design that is taught in English. In America, with its devotion to everything Parisian, this is only to be expected; one is only tempted to remark that "poché" in plan treatments might become "solids and voids," and that an English equivalent could be provided for so obvious a phrase as "plan analytique." For that matter, why refer to any American system as a "Beaux-Arts" one?

But these affairs, after all, are not germane to the issue, and Mr. Harbeson is to be congratulated on a really efficient expository of a systematised method of class training in design.

Reviews

THE LAW RELATING TO DILAPIDATIONS AND WASTE. *By W. T. Creswell, of Gray's Inn and South Eastern Circuit, Barrister at Law, Licentiate R.I.B.A., etc., London, 1927. Price 6s. net.* (*Builder, Ltd.*)

The Leasehold Reform Bill, should it become law, will probably create a new set of duties devolving certainly upon the surveyor, and possibly upon those who confine themselves to the practice of architecture; it may be said the purpose of this Bill is to make landlords more just and equitable as regards dealings with purely business premises, and the procedure is to be by arbitration, with restricted rights of appeal. The tribunal will normally consist of those qualified in the Law of Landlord and Tenant and its many and various ramifications, and it will devolve upon architects and surveyors to deal with those anomalies. Till recently, the law in such matters was deemed sacrosanct, but as nothing else seems to be so nowadays, the relation between lessor and lessee follows others into the melting pot, and, presumably, if this measure is satisfactory, other types of premises will be included into similar provisions, if not embodied in the statute immediately proposed.

At such a time as this architects and surveyors will surely welcome as a refresher a volume, small in bulk, but covering a wide perspective of the subject, dilapidations and waste, and as an examiner for a sister body, I am sure students will gladly welcome a textbook which deals comprehensively with the subject, and deals with it from the future side of Lord Birkenhead's statutes.

Mr. Creswell refers to an interesting case, Terrell *v.* Murray (1901) on the definition of (Fair Wear and Tear), as to how far dry rot can be dealt with, and in the standard case of Calthorpe *v.* McOscar (1924) an analysis of the various terms, usually found in covenants, is found. Reference is made as to evidence of boundaries, where of a hedge and ditch character, but unfortunately no reference is made to boundaries of other characters, which are frequently sources of much heart burning. Mr. Creswell deals at some length with the provisions of the recent statutes in respect to dilapidations, and these chapters will be of interest to those concerned particularly with small class property. It will be remembered that Mr. Creswell some little time ago published a text book on Building Contracts, which is deservedly popular, and this new work will make a useful companion to it. W. E. WATSON [*F.*].

THE PRACTICAL DECORATION OF FURNITURE. *By H. P. Shapland, A.R.I.B.A. 2 vols.* [*Ernest Benn, Ltd.*]

In a note on the cover Mr. Shapland states his policy in publishing this book:—"This book will form a complete encyclopædia of every method of decoration and enrichment which has been applied to furniture from the earliest times to the present day." The methods of decoration discussed are (in Volume I) veneering, inlay, marquetry, painting and gilding, and (in Volume II) moulding, pierced work, turned work, twisting and carving. A wide selection of illustrations has been made to explain the subject, including examples of various periods from Italy, France, Switzerland, Germany, Holland, Sweden and England, as well as Oriental work from Turkey and India. The book with its practical notes is intended to appeal primarily to the student and the craftsman.

It is a good thing that this question of the decoration of furniture should be considered from an intelligent and unprejudiced standpoint. It is a common and fashionable error to admire, or pretend to admire, a piece of furniture merely because it belongs to an historic period and is elaborately ornamented. This attitude of mind has been developed to a large extent by the activities of the collector who often makes his purchases less by the canons of good taste than by the recom-

mendation of the dealer. A false standard of values arises when the student is brought up to believe that pompous magnificence or even brilliance of execution represents the essence of fine art. Simplicity and suitability of purpose should rather be the goal of his ambition, and in the matter of decoration a judicious arrangement is of more importance than extravagant display. OLIVER BRACKETT.

RECENT FOREIGN PERIODICALS.

By GRAHAME B. TUBBS [*A.*].

"Automotive" buildings (this, in the American language, means buildings connected with the motor industry) form the subject of *The Architectural Forum* issue for March, which is yet another useful addition to their series of Reference numbers. Mr. Corbett looks into the future of streets in large cities, and has illustrated his visions by drawings and diagrams. His scheme to provide more space for vehicles on the road is either to raise the pavements above the road, or to recess them into the first floor of the buildings, while additional vehicle space or "parking" room is provided on the road level by recessing the ground floor of the buildings, and throwing this additional space on the streets, on the lines of M. Le Corbusier's scheme. Certain streets are reserved for fast, through traffic, with tunnels under the cross roads to obviate traffic blocks. It is a most interesting article, but many people would not agree with the first of his Basic Principles, that "the growth of the City is necessary and desirable." Garage and "parking" garages have received a great deal of consideration in America, and are more fully developed than they are here. It is interesting to note that in the "parking" garages, where there is a big rush at certain hours, lifts have been abandoned and ramps substituted. It has been found that the most economical form has been to "stagger" the floors with a ramp between, so that alternate floors are, so to speak, at *mezzanine* level.

In the February issue of the *Journal of the American Institute of Architects* are fine photographs by Rudolph Herold, of twelve Chinese Gates and Bridges, and in the March number is a report of the Architectural League of New York's Symposium—"Architecture as a Problem in Form and Colour," in which eminent architects, sculptors and painters took part.

There are also eight illustrations of Old Charleston, photographs of porches, and so on, and not of that now obsolete form of the dance of that name, where side kicking was indulged in!

Many replies to the A.I.A.'s Questionnaire on Policy are published, most of them being on the question of "exclusiveness or comprehensiveness of membership," and of the relationship of the Central Body to Provincial Chapters. They show as great a diversity of opinion as a similar Questionnaire would from the members of the R.I.B.A.

The February number of *Architecture* has an article on apartment house details and a large collection of photographs of "stairway halls," some from historic examples and others of modern adaptations of Colonial and Georgian precedents. In the February issue of *Pencil Points*, the second of a series of articles "French Comrades in America," deal with Prof. J. J. Haffdner, of Harvard, who, after winning the Chenavard and Roux Prizes in 1911 and 1912, won the *Grand Prix* after the War, and then took up a teaching appointment in the States. A series of articles on wrought iron is continued, with details of some of the suberb grilles from Toledo Cathedral.

The January number of *The Pacific Coast Architect* contained photographs of the new nineteen-storey Mark Hopkins Hotel, in San Francisco, by Weeks and Day, and a photograph of the extremely interesting Hollywood Storage Warehouse, at Los Angeles, by Morgan, Walls and Clements, in which the wall surface is mostly blank, but panelled vertically, with only three groups of narrow windows, which are surmounted by towers with large wireless masts above. Oddly enough, the same illustration is reproduced in the next number of this magazine.

The review of recent work by Canadian Architects, by John M. Lyle, is the feature of the *Journal of the Royal Architectural Institute of Canada.*

In the January issue of *L'Émulation* there is a continuation of a series of articles on the collaboration of the architect and engineer in evolving a theory for the application of ferro-concrete forms in architectural design.

In the ninety-third number of the Spanish magazine, *Arquitectura*, Mr. Robert Atkinson's conversion of Percy Lodge, and his scheme for the development of the estate with nice little Georgian houses is shown, and photographs and plans of typical houses are given.

In the German *Innen Dekoration* for March, the work of another English architect, Oliver Hill, is shown, being mostly examples of his more picturesque manner. In this number, the new showrooms, in Berlin, for the Bechstein Pianoforte Co., by Oskar Kaufmann, are illustrated.

In *Wasmuths Monats hefte für Baukunst* is the interesting factory at Charlottenburg, by Hans Hertlein, and the modernisation of two old London houses, one for a well-known architect, is shown, by photographs and plans, before and after the conversion.

THE OLD ASHMOLEAN BUILDING.

The Wren window presented to the Old Ashmolean Building (see pp. 523-524) was made by Messrs. James Powell, of the Whitefriars Glassworks, under the direction of Mr. R. T. Gunther, Curator of the Lewis Evans Collection, Oxford. The inscription was written by Mr. J. V. Powell, of St. John's College.

LIVERPOOL CATHEDRAL.

The photographs which illustrated Professor Reilly's lecture in the last JOURNAL were lent by Messrs. Morrison and Sons, Ltd., contractors, to whom we make grateful acknowledgment.

ACOUSTICS OF BUILDINGS.

Mr. Hope Bagenal, in a letter recently addressed to *The Times*, gives an account of successful treatment with regard to acoustics in the Legislative Chamber at Delhi by Sir Herbert Baker, and the Hastings Music Pavilion by Mr. C. Cowles Voysey and the late H. T. Morgan. Mr. Bagenal writes :—

From time to time buildings that are said to be acoustical failures are discussed in the Press ; may I bring to the notice of your readers two among many that have been designed from the early stages for good hearing and have proved acoustical successes ? They are the large Legislative Chamber at Delhi, by Sir Herbert Baker, and the new Hastings Music Pavilion, by Mr. C. Cowles Voysey and the late H. T. Morgan.

Sir Herbert Baker at Delhi had three chambers to design, but mention can only be made here of the largest, in which all the difficulties were magnified. A spacious and lofty chamber was necessary for comfort under Indian conditions, but how reduce reverberation in such a building to the point at which debate would be possible ? In the House of Commons rapidity in debate is due to the small volume of the Chamber and to the comparatively low splayed ceiling. Neither of these could be reproduced at Delhi. The architect therefore resorted to a plan designed to concentrate as much sound as possible on the floor of the House by means of wooden panelling round the members' seats tilted forward at an angle calculated to reflect speakers' voices back to members' ears, and on the upper walls and ceiling, where reflections would be dangerous, to absorb as much sound as possible by means of special sound-absorbing surfaces. A light porous tile was employed for this purpose ; in addition, the upper part of the ceiling was pierced in open-patterned plaster-work, above which layers of soft absorbents were placed. There is a consent among members that hearing is good, admitting easy debate. This simple fact in so complicated a problem is a positive result. There were, moreover, no complaints from Press and public in the galleries.

The Hastings Music Pavilion was designed first for musical tone, but, in addition, had to provide moderately good conditions for the platform speaker. Good tone in a concert room is roughly the result of combining in proper proportions hard plaster surfaces, resonant wood surfaces, and areas of upholstery and curtains in a room having a volume that will give the right length of reverberation. These various materials absorb at a different pitch in the musical scale, and therefore actually modify tone. Loudness, or body of tone, is the result of the angle at which reflecting surfaces are placed in relation to the source. Thus the building itself can be made an instrument. At Hastings, though there are minor criticisms to be made, the actual fullness of tone for an orchestra of 31, heard from every seat in the house, is equivalent to that of an orchestra of 50 or 60 in Queen's Hall. The loudness of the speaking voice from the platform is reinforced to the same scale. Actual quality of tone will require testing over a range of musical instruments and of musical opinion. In the opinion of *The Times* Musical Critic, " the tone of a comparatively small body of strings came through clear and ringing."

The success of both these auditories is largely due to experience gained from a series of tests undertaken for the Indian Government by the Building Research Board of the Department of Scientific and Industrial Research. But further research on English materials and for English building practice is badly needed by architects.

SERVICE FOR ART IN WESTMINSTER ABBEY.

The service arranged by the Royal Academy with the Dean and Chapter of the Abbey, took place at 5 p.m. on Thursday, 2 June, and was well attended by representatives of all branches of art.

Sir Frank Dicksee, P.R.A., read the lesson, and the Dean (the Very Rev. W. Foxley Norris), who is Honorary Chaplain to the Royal Academy of Arts, gave an address in which he referred to a speaker at the Academy Banquet who said he had looked round the walls and had failed to find the pulpit touch. Dr. Norris asked whether the Royal Academy was to blame or the pulpit, and pointed out that God revealed Himself in many ways, and the first great truth that art should make plain to simple people was truth in beauty. He referred to the work of many great painters, and mentioned sculptors, crafts men, authors, and musicians, but said nothing about architecture or architects, although in such a building, some reference to "sermons in stones" might have been expected.

A full choir rendered some appropriate music arranged by Mr. Sidney Nicholson, the Abbey organist, who conducted the unaccompanied anthem, " O praise the Lord, ye saints above," by Byrd.

The most impressive part of the service was the procession of the choir, headed by acolytes bearing crosses and banners, and followed by the Canons and Dean in their rich copes, and the High Bailiff of Westminster (Lord Muir Mackenzie) in his uniform. As they proceeded round the ambulatory, returning by the south transept, aisle and nave, back through the choir to the sacrarium, the choir sang the many-versed hymn, " Light's abode, celestial Salem," with short organ voluntaries between the verses, which sounded most beautiful and effective as they came from the various parts of the Abbey, particularly the distant ambulatory.

L. A.

BIRTHDAY HONOURS.

Amongst the official list of honours conferred by the King on the occasion of his 62nd birthday on 3 June are the following members of the Royal Institute :—

KNIGHT.

ALLISON : RICHARD JOHN, ESQ., C.B.E., F.R.I.B.A., Principal Architect to H.M. Office of Works.

[Sir Richard Allison was elected an Associate in 1904 and a Fellow in 1919.]

K.C.V.O.

DICKSEE : SIR FRANCIS BERNARD, P.R.A.

[Elected an Honorary Fellow in 1926.]

CIVIL AWARDS.

O.B.E. (CIVIL DIVISION).

KENDALL : GEORGE ERNEST, ESQ., A.R.I.B.A., Assistant Architect, Board of Education.

[Elected Associate 1922.]

COLONIAL OFFICE LIST.

O.B.E. (CIVIL DIVISION).

HEDGES : WALTER FREDERICK, ESQ., F.R.I.B.A., Chief Architect, Public Works Department, Gold Coast Colony.

[Elected Associate 1921 and a Fellow in 1923.]

CAMBRIDGE UNIVERSITY SCHOOL OF ARCHITECTURE.

Successes at American Universities.

In the years 1926 and 1927 three notable successes have been achieved by Students of the Cambridge University School of Architecture.

In 1926 Mr. F. P. Chambers (Clare College), who graduated B.A. in Architectural Studies in 1923, was awarded a Commonwealth Fund Fellowship at Harvard for the study of Architecture. Mr. Chambers entered the final competition for the Rome Prize in Sculpture in 1924, obtained the Essay Prize of the Royal Institute in 1925, and won a Royal Academy prize for Sculpture and Architecture.

In the same year (1926) Mr. C. D. G. Nicholson (Jesus College), who graduated B.A. in Architectural Studies in June last, obtained one of two Davison Scholarships awarded, open to Second or Third Year Students in any subject in the University, and tenable at an American University, Mr. Nicholson being nominated for Princeton.

The third success—another Commonwealth Fund Fellowship in Architecture at Pennsylvania University—has just been achieved, subject to formal ratification in America: Mr. Chester H. Jones (Trinity Hall), a Third Year Student, who will proceed to the B.A. Degree in Architectural Studies in June of this year.

The Commonwealth Fund Fellowships, open to British-born graduates of any University in the British Isles in any subject, are tenable for two years at £600 per annum, and are, therefore, distinctions of particular value. Only 20 are awarded in each year. The Davison Scholarships are £300 in value, tenable for one year.

[Received from the Director of the School of Architecture at Cambridge.]

Obituary

THE LATE MR. BRYAN WATSON [*A.*]

Most regrettable news comes from China of the death at Hankow, on 4 April, from peritonitis, of Mr. Bryan Watson [*A.*], a partner in the firm of architects, Stewardson, Spence and Watson, of Shanghai and Hankow.

In 1908 Mr. Watson was awarded "The Arthur Cates Prize" for the exceptionally high standard of his work for the Final Examination of the R.I.B.A.

His gallant services throughout the 1914–18 War were highly appreciated by his fellow officers, and by all with whom he served; he was twice mentioned in dispatches.

He served at the Front (in the actual war area) from December 1914 until the date of the Armistice 1918, attaining the rank of Captain in the Royal Engineers, having transferred from the Infantry, the 1st Battalion Northumberland Fusiliers, in 1916.

Mr. Bryan Watson married in 1918 Miss Frances E. Matthew, the youngest daughter of the late Frederic David Matthew, Hon. D. Litt. Oxford.

In view of the recent happenings in China, it seems particularly sad that Mr. Watson should have settled with his wife in the very centre of another war area.

To Mrs. Bryan Watson and to all relatives and friends we extend our deepest sympathies. The following are some of the important works that have been carried out in Shanghai and Hankow during Mr. Watson's association with the firm of Messrs. Stewardson, Spence and Watson: The Custom House at Hankow; the Post Office, Shanghai; the Grand Stand, Hankow Race Club; the War Memorials at Shanghai and Hankow.

J. H. Somerset.

GEORGE HALFORD FELLOWES PRYNNE.

The concise obituary notice under the above heading, in the last number of the Journal, encourages me to offer a supplementary line or two.

How well I remember Fellowes Prynne as he "blew in" to Street's office, fresh from Canada. His father, the Rev. G. R. Prynne, whilst a young vicar, had achieved the distinction of being the man first to entrust George Edmund Street with an independent commission, as architect for the chancel to his church of St. Peter, Plymouth; a building which eventually came to be completed, westward of the chancel, by George Prynne himself, after Street's death.

Our new comrade brought a definite contribution, all his own, to the gaiety of our little company, but, despite his gay air and smiling readiness for whatever fun was going, he could not long conceal a certain streak in him of grim determination; and shortly we realised that Prynne had not come into the office to play. After awhile he got moved on to the Architects' office at the New Law Courts building, a fresh experience for him. There ensued a year or two of active service as chief assistant to Mr. R. J. Withers, a well-known architect, whose work lay largely in church-building; and then Prynne boldly launched out on the troublous waters of architectural practice.

If it be permissible now to retell a story I told long ago in public, I should like to relate the following, by way of showing the sort of man that Prynne was. The builder for one of his works, suffering, no doubt, from dire need of ready-money, having got the young architect to accompany him to the topmost stage of the building in progress, there and then demanded of him a certificate on account up to a stated amount, and threatened that, failing promised compliance, he—the builder—would pitch the architect off the scaffold. "All right," said Prynne, keeping his eye on the man, "*but we'll go together!*"

Walter Millard [*F.*].

ARCHITECTS' BENEVOLENT SOCIETY.

The 77th Annual General Meeting of the Architects' Benevolent Society was held in the rooms of the Royal Institute of British Architects on Wednesday, 18 May, at 5 p.m. Among those present were: Mr. W. Hilton Nash (Honorary Treasurer) in the chair, Sir Banister Fletcher, Mr. Osborn C. Hills, Mr. E. Stanley Hall, Mr. A. H. Moberly, Mr. E. J. Partridge, Mr. W. Henry White, Sir A. Brumwell Thomas, Mr. H. S. E. Vanderpant, and Sir Charles Nicholson, Bart. (Honorary Secretary).

The Annual Report was read and approved as follows:—

The Council have the pleasure to submit their 77th Annual Report. Eighty-five applicants have been assisted with grants during the year, an increase in the number of eight over last year. Fourteen beneficiaries have received pensions, three of which are annuities founded by the generosity of Mr. Thomas Dinwiddy, and one—the Henry L. Florence Annuity—

by Mr. H. S. E. Vanderpant. One pensioner died in the course of the year, and two new pensioners were appointed. The sum of £1,643 was expended on grants and £514 10s. on pensions. £1,055 9s. 6d. was recevied in subscriptions.

The Council have gratefully to acknowledge the Society's indebtedness to Mr. H. S. E. Vanderpant for a further donation of £1,000 Stock in 2½ per cent. Annuities to increase the amount of the Henry L. Florence Annuity founded by him in 1925; and to Mr. H. Greville Montgomery for the sum of £150 to add to the large donations he has already made to the Society in previous years as Director of the Building Trades' Exhibition.

Other donations which have been received in the course of the year include £30 from Mr. Stanley Peach, £10 10s. each from Mr. W. Hilton Nash (Honorary Treasurer) and Captain L. A. D. Shiner; £10 from the York and East Yorkshire Architectural Society; £5 5s. from Mr. A. G. Morrice and £5 from the Liverpool Architectural Society. A legacy of £100 was received from the late Mr. Arthur Charles Galbraith and £10 10s. from Mr. H. G. Turner.

The Council report that during the year £60 worth of Stock has been added to the Society's investments.

The Society's insurance department has continued its scheme of advertisement during the year and has negotiated the issue of new policies in all branches of insurance. As in previous years, the surplus left over after the payment of expenses was handed over to the general fund.

The Council report with sincere regret the retirement of Sir Aston Webb, G.C.V.O., C.B., R.A., from the Trusteeship of the Society, which he has resigned "not through any lack of interest in the Architects' Benevolent Society," but solely "because he feels that the time has come to divest himself of this kind of responsibility." In accepting his resignation, the Council wish to record their indebtedness to Sir Aston Webb for the generous gifts and the personal help which he has always so freely given to the Society in the past.

To fill the vacancy caused by his retirement, the Council have the pleasure to nominate Sir Edwin Lutyens, R.A., as third Trustee.

The Council regret to report that the Society has lost by death many supporters during the year, including Mr. G. H. Fellowes Prynne, a member of the Council; Mrs. J. Belcher, Sir Charles T. Ruthen, Mr. W. H. Brierley, Mr. Charles H. Ashworth, Mr. J. W. Benwell, Mr. W. G. Cooke, Mr. P. G. Fry, Mr. W. H. Harrison, Mr. P. B. Houfton, Mr. E. T. Jago, Mr. Delissa Joseph, Mr. Henry Lord, Mr. H. L. Paterson, Mr. Stephen Smith, Mr. Thomas Whinney, and Mr. G. Wittet.

The five senior members of the Council retire by rotation, viz., Mr. W. Henry White, Mr. Maurice E. Webb, Mr. E. C. P. Monson, Major H. C. Corlette, and Mr. Edward J. Partridge.

To fill the vacancies caused by these retirements and the death of Mr. Fellowes Prynne, the Council have the pleasure to nominate Mr. H. V. Ashley, Sir Banister Fletcher, Mr. E. Bates, Sir A. Brumwell Thomas, Sir John Burnet, and Mr. A. Saxon Snell.

The Council have the pleasure to acknowledge their great indebtedness to the Royal Institute of British Architects for the use of office accommodation, and to Mr. MacAlister and the staff of the Institute for courteous help on all occasions.

In the absence of the President, Mr. E. Guy Dawber, A.R.A., the Honorary Treasurer (Mr. W. Hilton Nash) moved the adoption of the Annual Report. Mr. Hilton Nash said:

"In the absence of the President, I have been called upon to take the chair at this meeting, the 77th Annual Meeting of the Society. It is a matter of sincere regret to all of us that the President is unable to be present. By his absence we are deprived of his society and of the pleasure of complimenting him in person on the honour which the Royal Academy has recently conferred on him in electing him an Associate. I am sure we all congratulate him most heartily.

"It gives me great pleasure to move the adoption of the Annual Report and Balance Sheet; and while noting the increasing prosperity of the Society, I feel impelled to express the dissatisfaction which is felt among those who are interested in the Society with the amount subscribed in comparison with the number of architects who are in a position to subscribe but who do not; and, like Oliver Twist at Dotheboy's Hall, I voice the general discontent and "ask for more." We feel that more individual architects might subscribe, and that more might be subscribed by the Allied Societies. One Allied Society has arranged to make a levy of a shilling per member for the Architects' Benevolent Society, and it would be a great help if others of the Allied Societies followed its excellent example. Architects sometimes give a small donation and then allow their interest in the Society to lapse. Nothing more is heard of them for years, which is disappointing, as the Society is kept going by the sustained interest of its members who subscribe faithfully year after year. We should be very pleased, while appreciating the value of every stray guinea, if these occasional contributors could see their way to become regular subscribers.

"The donations which we have received show that our Society inspires confidence. Among the donations this year you will see that we have gratefully to acknowledge another large donation from Mr. H. S. E. Vanderpant; and Mr. Greville Montgomery, Director of the Building Trades Exhibition, has sent us £150. This Report deals only with donations received in the course of 1926, but I am glad to mention that our Vice-President, Mr. Thomas Dinwiddy, gave us in February last another £500 to add to the sums he has already given for the founding of the Dinwiddy Annuities.

"We all regret that Sir Aston Webb's health makes it necessary for him to resign the Trusteeship of the Society. And we hope that the great interest he has always shown in the Society will not cease with his resignation. It gives me pleasure to announce that Sir Edwin Lutyens, R.A., has consented to act as Trustee in his place.

"Perhaps you will allow me to remind you of the Architects' Benevolent Society's Insurance Department, which exists with the idea of helping the funds of the Society and also of assisting architects with advice regarding their insurances. Architects who have negotiated their insurances through the Society are well satisfied with their policies, and we earnestly hope that an increasing number of architects will avail themselves of the services of this Department."

The Council for the ensuing year was elected as follows:—

President.—The President of the R.I.B.A.

Vice-Presidents.—Mr. Thomas Dinwiddy, Mr. H. S. E. Vanderpant.

Ordinary Members.—Mr. A. H. Moberly, Mr. H. D. Searles-Wood, Mr. Osborn C. Hills, Mr. Arthur Crow, Mr. Michael Waterhouse, Mr. L. S. Sullivan, Mr. H. V. Ashley, Sir Banister Fletcher, Mr. E. Bates, Sir A. Brumwell Thomas, Sir John Burnet, Mr. A. Saxon Snell, Mr. R. Dircks, Mr. E. Stanley Hall (representing the Architectural Association), Mr. Henry Lovegrove (representing the London Society), Mr. W. Hilton Nash (Honorary Treasurer), Sir Charles Nicholson (Honorary Secretary).

NOTES FROM THE MINUTES OF THE COUNCIL.

16 *May* 1927.

Mr. E. Guy Dawber, A.R.A.

The cordial congratulations of the Council were conveyed to the President upon the honour which he had received by his election as an Associate of the Royal Academy.

Libraries of Schools of Architecture.

It was agreed to renew the grant of £100 to the Board of Architectural Education and the Allied Societies' Conference for the provision of additional studio text-books for use by students of Schools and of Allied Societies, which have an inadequate supply of text-books.

Future Work of the Art Standing Committee.

With a view to reducing the number of Institute Committees, it was decided to hand over the work of the following Committees to the Art Standing Committee :—

(1) The Exhibition Joint Committee (with power to co-opt additional members who are not members of the Art Committee).

(2) The London Architecture Medal Jury (with power to co-opt laymen and representatives of the bodies at present represented on the Jury).

University of London Centenary Celebrations.

The President was appointed to represent the R.I.B.A. at the University of London Centenary Celebrations, to be held on 23 June.

The Architectural Association.

It was agreed to renew the annual grant of £100 to the Architectural Association for the year 1927.

International Standards of Measurement in Building and Engineering Components.

On the recommendation of the Science Standing Committee, the following resolution was passed and forwarded to the British Engineering Standards Association :—

"That the Council of the Royal Institute of British Architects are of opinion that any steps taken to introduce international standards of measurement in building and engineering components will be to the ultimate advantage of British industry."

Conditions of Contract Conference.

Major Harry Barnes and Mr. Maurice Webb were appointed as additional representatives of the R.I.B.A. on the Conditions of Contract Conference.

The Fellowship.

The Council, by a unanimous vote, elected Mr. John Wittet (*L.*) President of the Inverness Architectural Association, as a Fellow under the powers defined in the Supplemental Charter of 1925.

Studentship.

The following were elected Students of the R.I.B.A. :—

Adair-Thompson, Eric Langdon, (Architectural Association).
Brodie, Angus (Architectural Association).
Bull, Henry Alexander (Technical College, Cardiff).
Fogden, Joseph (Leeds College of Art).
Maitland, Ralph Waldo (Architectural Association).
Roberts, Leslie Hugh Bennet (Architectural Association).
Stanley, Theodora Christine (Architectural Association).
Sully, Charles Walker (Architectural Association).
Tomkyns, Harold Glencoe (Special Exemption).
Turner, Phirozsha Rustoniji (Bombay School of Art).
Williams, Lawrence Paul (Architectural Association).

Resignations.

The following resignations were accepted with regret :—

Sydney Francis Bartleet [*F.*].
George Benson [*A.*].
Alfred Crumblehulme Flitcroft [*A.*].
John Francis Chambers [*L.*].
Harry Joseph Yorke [*L.*].

Application for Election as Subscriber.

One application was approved.

Application for Election as Licentiate Under Section III (f) of the Supplemental Charter of 1925.

One application was approved.

Application for Transfer to Retired Fellowship.

The following member was transferred to the Retired Fellowship :—

Ernest Augustus Eckett Woodrow, elected Associate 1881, Fellow 1905.

THE A.B.S. INSURANCE AGENCY.
MOTOR RISKS.

The Architects' Benevolent Society offers a safe motor insurance policy with low premiums and a prompt claims service. Comprehensive cover. Security. Write for prospectus, stating make of car, H.P., year and value, to the Secretary, A.B.S., 9 Conduit Street, W.1.

Every inquiry received has resulted in a completed insurance.

ARCHITECTS' REGISTRATION BILL.

Extract from Mr. Ernest M. Powers' Letter, Hon. Secretary, R.I.B.A., for South Africa.

The Architects' Registration Bill passed the Third Reading in the Union House of Assembly on 6 May; the Bill now goes to the Senate as a matter of course before being placed on the Statute Book.

In the Committee Stage, the Bill was amended in respect of Clause 3(c), which was deleted; this clause reads: "no person shall . . . perform the work of an architect or quantity surveyor respectively, for remuneration in respect of any premises within the boundaries of any municipality wherein at least two architects not being in partnership are carrying on business."

The result of the Bill as now passed is that the title "architect" or "quantity surveyor" is protected and only those persons who are qualified and registered as such may use the title in the Union of South Africa.

R.I.B.A. EXAMINATION FOR CANDIDATURE AS DISTRICT SURVEYOR IN LONDON.

It is to be regretted that more candidates do not sit for the Statutory Examination which should be taken by all students who are anxious to test their knowledge in building craft, whether they intend to apply for appointments as district surveyors or not, as the examination is a strictly practical one and the preparation for the examination is an excellent training.

The London County Council are anxious to increase the number of architects qualified for appointment to district surveyorships. All the appointments are to districts, the fees of which amount to at least £1,000 per annum, and it is felt that were this fact better known many more practising architects would present themselves for examination by the Royal Institute of British Architects with a view to obtaining the certificate of competency required under Section 140 of the London Building Act, 1894. The appointments for which the Council invites applications by advertisement are, it should be noted, for the less lucrative districts, as it is the Council's practice to appoint the district surveyors of proved capacity to the more lucrative districts as vacancies occur.

RECENT BEQUESTS TO THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The Royal Institute of British Architects have received information of the following bequests which have been made for the purpose of founding Scholarships or Bursaries for Architectural Students :—

(1) *The late Mr. A. C. Houston, A.R.I.B.A.*

Under the will of the late Alfred Charles Houston, the residue of his estate is bequeathed to the R.I.B.A., for the purpose of providing educational and maintenance scholarships for the sons of architects and artists who may be or at the time of their death were in impecunious circumstances, such scholarships to be known as " The Houston Scholarships."

The amount to be received is not yet ascertainable.

(2) *The late Mr. C. W. Hunt, A.R.I.B.A.*

Under the will of the late Charles William Hunt, the sum of £500 is bequeathed to the R.I.B.A. for the purpose of forming a fund, the income of which shall be applied annually in the purchase of book prizes, medals, or in such manner as the Institute shall think fit, for the person or persons of British nationality and under the age of 30 years, who each year, in the opinion of the Institute, submit the best plans, drawings, or designs in connection with housing and town planning or similar purposes.

The residue of the estate up to £2,000 is to be divided equally between the Vicar and Churchwardens of the Parish of Burwell and the R.I.B.A., for the same objects as the legacies before bequeathed.

The estimated residuary estate is stated to amount to £3,118.

(3) *The late Mr. Delissa Joseph, F.R.I.B.A.*

Under the will of the late Mr. Delissa Joseph, subject to the payment of certain legacies, the Institute will receive after the death of his wife, one quarter of the residue of his estate for the purpose of founding an annual bursary to be known as " The Delissa Joseph Bursary " to be awarded annually, subject to conditions to be from time to time laid down by the President for the time being, to an approved Student or Students who shall have passed the necessary qualifying examinations of the R.I.B.A., to enable him or them to visit the United States for the purpose of studying architecture. Each student to whom the bursary is awarded shall, on his return, furnish a written report on his visit, which shall be printed in the JOURNAL.

Mr. Joseph, who died on 10 January, left estate of the gross value of £32,606, with net personalty of £25,925.

BOARD OF ARCHITECTURAL EDUCATION.

THE SOANE MEDALLION AND THE TITE PRIZE. FINAL COMPETITIONS.

As a result of the Preliminary Competitions for the Soane Medallion and the Tite Prize, the following have been selected to take part in the Final Competitions.

The Soane Medallion.

Mr. S. G. Chaplin, Bartlett School of Architecture, University of London.
Mr. E. F. Davies, School of Architecture, University of Liverpool.
Mr. Raymond Erith, School of Architecture, Architectural Association.
Mr. D. H. McMorran,
Mr. Leonard Monroe, School of Architecture, The Technical College, Cardiff.
Mr. W. B. Oldacre,
Mr. W. Percik, School of Architecture, Architectural Association.
Mr. J. W. Wood, School of Architecture, Architectural Association.
Mr. J. B. Wride, School of Architecture, The Technical College, Cardiff.

The Tite Prize.

Mr. A. G. Armstrong, School of Architecture, Northern Polytechnic, London.
Mr. H. I. Ashworth, School of Architecture, University of Manchester.
Mr. A. Bailey.
Mr. W. G. Benoy, School of Architecture, University of Manchester.
Mr. J. W. Buchanan, School of Architecture, Architectural Association.
Mr. R. M. Butler, Birmingham School of Architecture.
Mr. E. J. Carter, School of Architecture, Architectural Association.
Mr. P. J. Doran, School of Architecture, University of Liverpool.
Mr. E. J. Harrison.
Mr. H. A. Hunt, School of Architecture, Northern Polytechnic, London.
Mr. Allan Johnson, School of Architecture, Leeds College of Art.
Mr. C. H. Jones, School of Architecture, University of Cambridge.
Mr. B. St. C. Lightfoot, School of Architecture, University of Liverpool.
Mr. J. L. Martin, School of Architecture, University of Manchester.
Mr. Patrick McNeil, Glasgow School of Architecture.
Mr. Alec Owen, School of Architecture, University of Liverpool.
Mr. J. W. Parr, School of Architecture, Architectural Association.
Miss C. W. Preston, School of Architecture, Architectural Association.
Mr. J. R. Tolson, School of Architecture, Leeds College of Art.
Mr. Walter Watson, Birmingham School of Architecture.

LIST OF EXAMINATIONS RECOGNISED FOR THE PROBATIONERSHIP R.I.B.A.

Attention is called to the fact that the Council of the R.I.B.A. have decided to exclude, after 31 December 1928, from the List of Examinations recognised for the Probationership, the Junior (Honours) Local Examinations conducted under the authority of any University in the British Empire.

Subjects Required.

Attention is called to the fact that the Council of the R.I.B.A. have decided that History and Geography shall be made alternative subjects in the list of subjects required to be covered by the Certificates accepted in support of applications for registration as Probationer. The revised list of subjects is, therefore, as follows :—

English Composition.
Elementary Mathematics (Arithmetic, Algebra, Geometry).
Mechanics or Physics, or Higher Mathematics or Chemistry.
History or Geography.
One language other than English.

MEMBERS' ADDRESSES.

The Secretary of the R.I.B.A. will be glad to receive any information as to the present addresses of the following members :

Fellow.

George Simpson.

Associates.

William Edward Benjamin Froome Crook.
Charles Guy Dixon.
Morgan Rhys Howell Harris.
Charles Geddes Clarkson Hyslop.
Burrough de Carle Jackson.
William Sadler.

Licentiates.

Howard Leslie Baker.
Norman Boothroyd.
Archibald Ellis Chasemore.
James Caughey Walker.

" REFRESHER " COURSES FOR ARCHITECTS IN PRACTICE.

A suggestion has been made that a series of " refresher " courses for architects in practice should be held by the R.I.B.A. in the same way as is done in some other professions, and that these lectures should embrace the following subjects :—

(1) Strength of materials.
(2) Materials : Their Use and Nature.
(3) Design in Steel, Concrete, Timber, etc.
(4) Sanitation.
(5) Heating and Ventilation.
(6) Gas Installations.
(7) Electric Installations.
(8) Building Acts and Bye-laws.
(9) Light and Air, and other Easements.
(10) Contracts.

Before proceeding further with arrangements for courses to be held in any, or all of these subjects, the Council wish to ascertain if there is any general desire for them on the part of members, and it is therefore requested that members who would be willing to attend should send in their names to the Secretary, R.I.B.A., with a note as to the subjects in which they are particularly interested.

Notices

THE SIXTEENTH GENERAL MEETING.

The Sixteenth General Meeting (Business) of the Session 1926-27 will be held on Monday, 20 June 1927, at 8 p.m., for the following purposes :

To read the Minutes of the General Meeting (Ordinary) held on 30 May 1927 ; formally to admit members attending for the first time since their election or transfer.

To proceed with the election of the candidates for membership whose names were published in the Journal for 21 May 1927 (pp. 497-499).

To read the report of the Scrutineers appointed to examine the voting papers for the election of the Council and Standing Committees for the Session 1927-28.

BRITISH ARCHITECTS' CONFERENCE, LONDON, 20-25 JUNE 1927.

Final arrangements for all the events of the Conference are now being made. The work of organisation is made much more difficult by delay in sending in applications.

It is hoped that all Members who have not already done so will at once refer to the programme sent to them with the Journal on 21 May and send in their names for such of the events as they desire to take part in without further delay.

R.I.B.A. ANNUAL DINNER 1927.

The Annual Dinner of 1927 is to take the form of the Conference Banquet and will be held in the Grand Hall, Hotel Cecil, Strand, W.C., on Friday, 24 June 1927, at 7—for 7.30 p.m.

Members who wish to attend and have not yet applied for tickets are requested to do so immediately.

The price of tickets is 15s. each (exclusive of wines and cigars).

REGISTRATION OF ARCHITECTS.

Voluntary Register of Persons who are not members of the R.I.B.A. or of any Allied Society.

The Registration Committee of the R.I.B.A., with the approval of the Council, has opened a voluntary register of persons who, *not* being members of the R.I.B.A. or of any of its Allied Societies, desire to have their registration qualifications recorded in view of the intention of the R.I.B.A. to promote a Bill for the Registration of Architects.

The object of the voluntary register is to provide and maintain, with the registers of the R.I.B.A. and of its Allied Societies, a complete record of persons in *bona fide* practice as architects, either as principals or assistants, in England, Scotland, Wales and Northern Ireland.

While there is no charge for record in the register and such record does not involve any obligation on the part of the persons registered, or the R.I.B.A., or the Registration Committee, the existence of such a register in the

event of a Registration Act coming into force in this country will greatly expedite and facilitate the machinery of Registration.

The Register will be subject to revision and amendment from time to time, and the Registration Committee reserves the right to discontinue the system of voluntary registration at any time, and in the event of a Registration Act coming into force the voluntary register will be discontinued.

Particulars for record in the register should be entered on the forms provided for the purpose. These can be obtained on application to the Secretary of the R.I.B.A. Registration Committee, at 28 Bedford Square, London, W.C.1.

Competitions

ROSS HOUSING SCHEME.

Members of the Royal Institute of British Architects must not take part in the above competition, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

PROPOSED CHAPEL IN NEW CEMETERY, COUNTY BOROUGH OF READING.

The Corporation of Reading invite architects practising or residing in Berkshire, Buckinghamshire, or Oxfordshire to submit designs in competition for the erection of a chapel in the new cemetery at Caversham. Assessor, Charles J. Blomfield [*F.*]. Premiums, 50 guineas and 25 guineas. Last day for questions, 23 May. Designs to be sent in not later than 1 July 1927. Conditions of competition, instructions to competitors, and plan of the site may be obtained on application to the Borough Surveyor, Town Hall, Reading, on payment of a deposit of £2 2s.

MERTHYR VALE WAR MEMORIAL COMPETITION.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members are advised to take no part in the competition.

STRODE PARK ESTATE HOUSE DESIGN COMPETITION.

Members of the Royal Institute of British Architects must not take part in the above competition because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions.

NEW GRAMMAR SCHOOL, BRADFORD.

The Governors of the Bradford Grammar School invite architects to submit designs in competition for the New Grammar School proposed to be erected on the Clockhouse site in Keighley Road, Bradford, Yorkshire. Assessor, Mr. Arnold Mitchell [*F.*]. Premiums, £300, £200 and £100. Designs to be sent in not later than 30 June 1927. Particulars and plan of site may be obtained, by depositing £1 1s., from W. Brear, Secretary, Grammar School, Bradford, Yorks.

CITY OF BIRMINGHAM CIVIC CENTRE.

The Corporation of the City of Birmingham invite those qualified or practising as architects or town planners to submit designs in competition for laying out an area for the purposes of a civic centre. Assessor, Mr. H. V. Lanchester [*F.*]. First premium £1,000. Last day for questions 31 January 1927. Designs to be sent in not later than 30 June 1927. Conditions, on payment of £1 1s., may be obtained on application to the City Engineer and Surveyor, Council House, Birmingham.

SHAKESPEARE NATIONAL MEMORIAL THEATRE, STRATFORD-UPON-AVON.

The Governors of the above invite architects to submit designs for the Shakespeare National Memorial Theatre, Stratford-upon-Avon.

The competition will be open to architects of the British Isles and America. It will be in two sections—a preliminary competition for sketch designs only, from which six designs will be selected by the assessors ; each of the selected competitors will be paid £100 premium towards the cost of preparing a further more detailed design, which will form the second half of the competition.

The selected architect will be paid in accordance with the Schedule of Charges sanctioned by the Royal Institute of British Architects.

Conditions of competition, with site plan, etc., can be obtained from the Secretary, Shakespeare Memorial Theatre, Stratford-on-Avon, on payment of a deposit of £1 1s. (which will be refunded should the conditions be returned within one month).

Preliminary designs must be delivered to Stratford-on-Avon not later than 15 June 1927.

The Governors of the Shakespeare National Memorial Theatre have appointed the following architects to act as Assessors for the Competition for the new Shakespeare National Memorial Theatre, Stratford-on-Avon :—Mr. E. Guy Dawber, President R.I.B.A., and Mr. Cass Gilbert, President of the National Academy of Design of America (who will both act in an honorary capacity), and Mr. Robert Atkinson, F.R.I.B.A.

LEXDEN COUNCIL SCHOOL COMPETITION.

Members of the Royal Institute of British Architects must not take part in the above Competition because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

WINTHROP HALL AND OTHER BUILDINGS FOR THE UNIVERSITY OF WESTERN AUSTRALIA.

Premiums £300, £200, and £100. Total cost, £150,000. Jury of adjudicators, Leslie Wilkinson [*F.*] (Professor of Architecture, University of Sydney), President (1926) of the Royal Institute of Architects of Western Australia (Mr. A. R. L. Wright, L.R.I.B.A.), and a member of the Senate, University of Western Australia. Last day for questions, 31 March 1927. Designs to be delivered to the University, at or before noon on 24 August 1927. Conditions may be obtained gratis from the Agent-General for Western Australia, Savoy House, 115–116, Strand, W.C.2.

Members' Column

PARTNERSHIPS.

ARCHITECT (42), F.R.I.B.A., A.M.T.P.I., recently returned from China, on account of unrest, desires partnership or appointment, with partnership in view. Midlands preferred owing to personal connections, but any locality (including overseas) considered. Wide experience as principal in public building, office, domestic and factory work. Credentials and photographs of executed work on interview. —Apply Box 2357, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

MEMBER offers partnership to a young Associate in a branch office which has splendid possibilities. No premium required, but a little capital necessary for personal use. English Riviera.—Reply Box 2757, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A. (42), with wide London experience, and having small connection in large suburban town near London, wishes to join a firm of architects of good standing, with a view to partnership, can place small capital if required.—Apply Box 2517, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

DISSOLUTION OF PARTNERSHIP.

THE partnership subsisting between Mr. Herbert A. Welch (F.) and Mr. H. Clifford Hollis (A.), has been dissolved as from 25 March 1927. Mr. Welch will continue to carry on his practice at 7 New Square, Lincoln's Inn, W.C., and Mr. Hollis will practise in future from 53 Great Marlborough Street, Regent Street, W.1 (Gerrard 6158).

CHANGES OF ADDRESS.

JOHN C. PROCTER (A.) (late of 62 Woodhouse Lane, Leeds) has changed his address to 40 Clarendon Road, Leeds. Telephone number: 22555.

MESSRS. A. F. SCOTT AND SONS, FF.R.I.B.A., have changed their address from 24 Castle Meadow to 23 Tombland, Norwich.

MR. ARNOLD SILCOCK (A.) has moved his offices from Gray's Inn to 97 Jermyn Street, St. James's. Telephone: Gerrard 6902.

SIR JOHN W. SIMPSON and Mr. Maxwell Ayrton having dissolved partnership, Mr. Maxwell Ayrton has moved his office to 7 Grosvenor Street, New Bond Street, W.1. Telephone: Mayfair 1470.

OFFICE ACCOMMODATION REQUIRED.

ARCHITECT wishes to rent a room in an architect's office with telephone, electric light, fitted drawing table, and clerical assistance when required. St. James's or Westminster district preferred. State rent.—Apply Box 2637, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

MEMBER desires to rent room in architect's office where use of telephone is available. W.1 or S.W.1 districts preferred.—Apply Box 2057, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

OFFICE ACCOMMODATION.

A.R.I.B.A. has spare office accommodation (close to Charing Cross), excellent light, second floor, suitable for young architect or provincial firm requiring London office. Moderate inclusive terms.—Apply Box 0484, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A FIRM of architects, members of the Institute, have a room available at Midsummer, with excellent address, near Temple railway station, Victoria Embankment; rent £65 inclusive of services, with independent branch telephone.—Apply to Box 6527, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ARCHITECT (R.I.B.A.) wishes to let a large light room, 17 feet 6 inches by 15 feet, with fitted plan cupboard and book-shelves, on the first floor in an office in Gray's Inn. Rent £85 per annum. The above includes share of waiting room, rates, taxes, electric lighting and cleaning. Telephone with extension is installed and share of clerk for typing and tracing can be arranged.—Reply Box 8272, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ARCHITECT (F.R.I.B.A.) wishes to let large room adjoining Lincoln's Inn, rent £70 per annum, inclusive of light and heating and fitted drawing table.—Reply Box 5331, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

BACK NUMBERS OF THE R.I.B.A. JOURNAL.

THE WIDOW of a late member is anxious to dispose of 10 complete unbound volumes of the R.I.B.A. JOURNAL, from 1917 to date.—Apply to Box 8627, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

Minutes XVIII

SESSION 1926-27.

At an Extra General Meeting held on Monday, 23 May 1927, at 8 p.m., Sir Banister Fletcher, F.S.A., Vice-President R.I.B.A., in the Chair.

The attendance book was signed by 9 Fellows (including 1 Member of the Council), 10 Associates (including 2 Members of the Council), 1 Hon. Associate, 1 Retired Fellow, and a very large number of visitors.

Mr. Arthur J. Davis [*F.*] having read a Paper on "Architecture in North Africa" and illustrated it by lantern slides, a discussion ensued, and on the motion of Sir John W. Simpson, K.B.E. [*F.*], seconded by Mr. Martin S. Briggs [*F.*], a vote of thanks was passed to Mr. Davis by acclamation, and was briefly responded to.

The proceedings closed at 9.20 p.m.

Minutes XIX

SESSION 1926-27.

At the Fifteenth General Meeting (Ordinary) of the Session 1926-27, held on Monday 30 May 1927, at 8 p.m., Mr. Arthur Keen, Vice-President R.I.B.A., in the Chair.

The attendance book was signed by 17 Fellows (including 7 Members of the Council), 13 Associates (including 1 Member of the Council), 4 Licentiates, 1 Retired Fellow, and a large number of visitors.

The Minutes of the meeting held on 16 May 1927 having been published in the JOURNAL, were taken as read, confirmed and signed as correct.

The Hon. Secretary announced the decease of :—

Clarence Tilt Coggin, elected Associate 1881, Fellow 1926.
John Mackintosh, elected Licentiate 1912.
John Scotland, elected Licentiate 1911.

And it was *Resolved* that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following member attending for the first time since his election was formally admitted by the Chairman :

Frank Alexander Tattersfield [*L.*].

Professor C. H. Reilly, O.B.E. [*F.*], having read a Paper by Mr. Thomas Hastings (Hon. Corresponding Member) on "Devonshire House Buildings" and illustrated it by lantern slides, a discussion ensued, and on the motion of Mr. E. C. Hannen, Chairman of Devonshire House, Ltd., seconded by Mr. H. W. Tompkins, a Past President of the Royal Victorian Institute of Architects, a vote of thanks was passed to Mr. Hastings by acclamation, and was briefly responded to by Professor Reilly.

The proceedings closed at 9.30 p.m.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

R.I.B.A JOURNAL.

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